



COMPETENCE
FOR COFFEE

COMPETENCE FOR COFFEE



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With this we would like to give you an overview on our complete portfolio to serve coffee productions of every capacity. From Roasters, Grinders, Turn-Key Lines, Services you'll find high-quality solutions for every capacity and price range.

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ABOUT US

IMS-RITTER stands for

- Roaster technology for small, mid-scale and industrial productions
- Fast, reliable and professional services on existing machinery
- Turn-key solutions and individual aggregates for coffee processing lines

Organisation

- Founded in 2004 as IMS – International Machinery Service
- Since 2019 part of the RITTER-group, a German family-owned business incorporating ca. 100 companies and with a focus on Hidden Champions and long-term sustainable investments (www.ipm-wagner.de)
- Flat structures, short decision paths and a familial company culture form the basis of our customer-oriented way of working

OUR APPROACH

Roots in services shape our approach

In 2004 IMS-RITTER was founded by Alwin Böing, coffee industry expert with at that time more than 30 years experience. Repair and Refurbishment of existing machinery were the core of the business. During the years more and more customers appreciated our fast reaction times and competence in services of all kinds. This has shaped our working philosophy: We listen to your needs and ideas. We optimize your production according to your actual experiences and plant specific conditions.

State-of-the-art machinery with exceptional benefits

Since 2005 IMS has developed a wide range of roasting machinery that comes with unique advantages. Besides our premium roaster type RDRF, IMS-RITTER holds a variety of budget-friendly or refurbished solutions for you.

We are passionate about making your production of coffee as flexible, efficient and reliable as possible. From reception of green coffee, roasting machines, grinders, storing, conveying systems – we provide for flexible machinery and plants that form a sustainable and future-proof investment for the processing of coffees, and also cocoa, nuts and kernels. Being experts you can expect cost-effective solutions and dependable advice. With each project we integrate your individual requirements and ideas.

Quality without compromise

We are committed to quality and control carefully workmanship and materials used. We manufacture exclusively at our production site in Rees, Germany and use primarily parts of renowned German suppliers. Let us show you that maximum quality can go along well with cost-effectiveness.



DRUM ROASTER SERIES RDRF – INDUSTRIAL ROASTER DRUM RECIRCULATION FLEXIBLE

Our RDRF drum roaster set a new standard in drum roasting.

We listened to customers' needs and developed a roaster that opens unique freedom and flexibility in roasting with homogenic and reproducible results. Designed for high outputs as well as gourmet and specialty products.

Our "Clean Design"-Concept ensures hygienic conditions and easy maintenance. The outstanding quality of materials and workmanship provide you with a roaster to last for decades.

INSPIRING IDEAS IMPRESSIVE TECHNOLOGY

Our masterpiece

- One machine able to roast all kinds of your coffee products
- Unique flexibility in the direction of hot air offers more possibilities in aroma and flavor development
- Outstandingly homogenous results
- “Clean Design” concept for a hygienic machine environment and conditions according to HACCP
- Quality – made in Germany – for maximum machine availability and long service life



“Clean Design”-Concept

- Hygienic production and machine environment
- High safety level for operating staff
- Ideally suitable also for “open-to-public”/show roasting
- Reduced noise by integration of parts, like fans in the machine’s body
- Convenient access for cleaning and maintenance ensured by large openings all around the machine
- Central lubrication point simplifies greasing of all relevant parts
- Quick to reach and exchange spare parts

Unique Hot Air System with external burner

- External burner for a maximum of possibilities in product development
- Spiral injection for extremely homogenous results
- Reduced thermal loads for machine parts that do not need to be heated, the machine’s lower part remains “cold” which avoids tensions and material fatigue
- Bypass allows for sudden interruption of hot air flow, which gives the option of letting beans “stir in their own juice” for special aroma profiles
- Residual heat does not interfere with the regulation of the roasting process



Closed Cooler

- Highly efficient and hygienic cooling process
- Integrated air ducts to homogeneous air suction with high ventilation system performance
- Health protection and safety for operators/roast masters

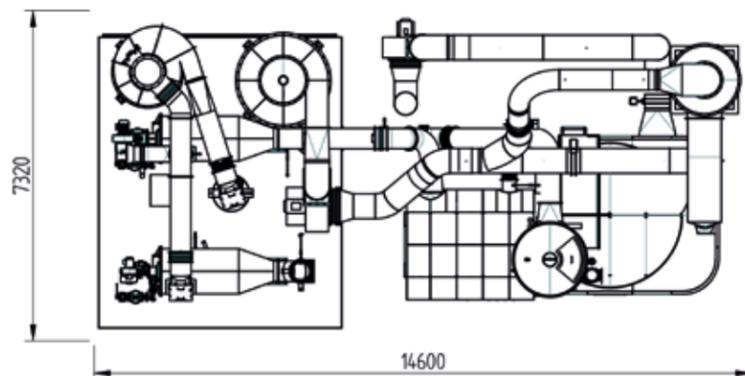
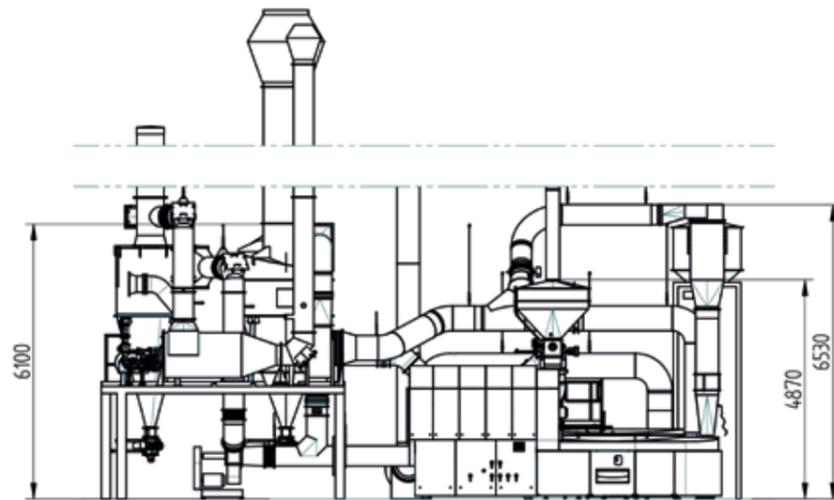
TECHNICAL DATA

RDRF

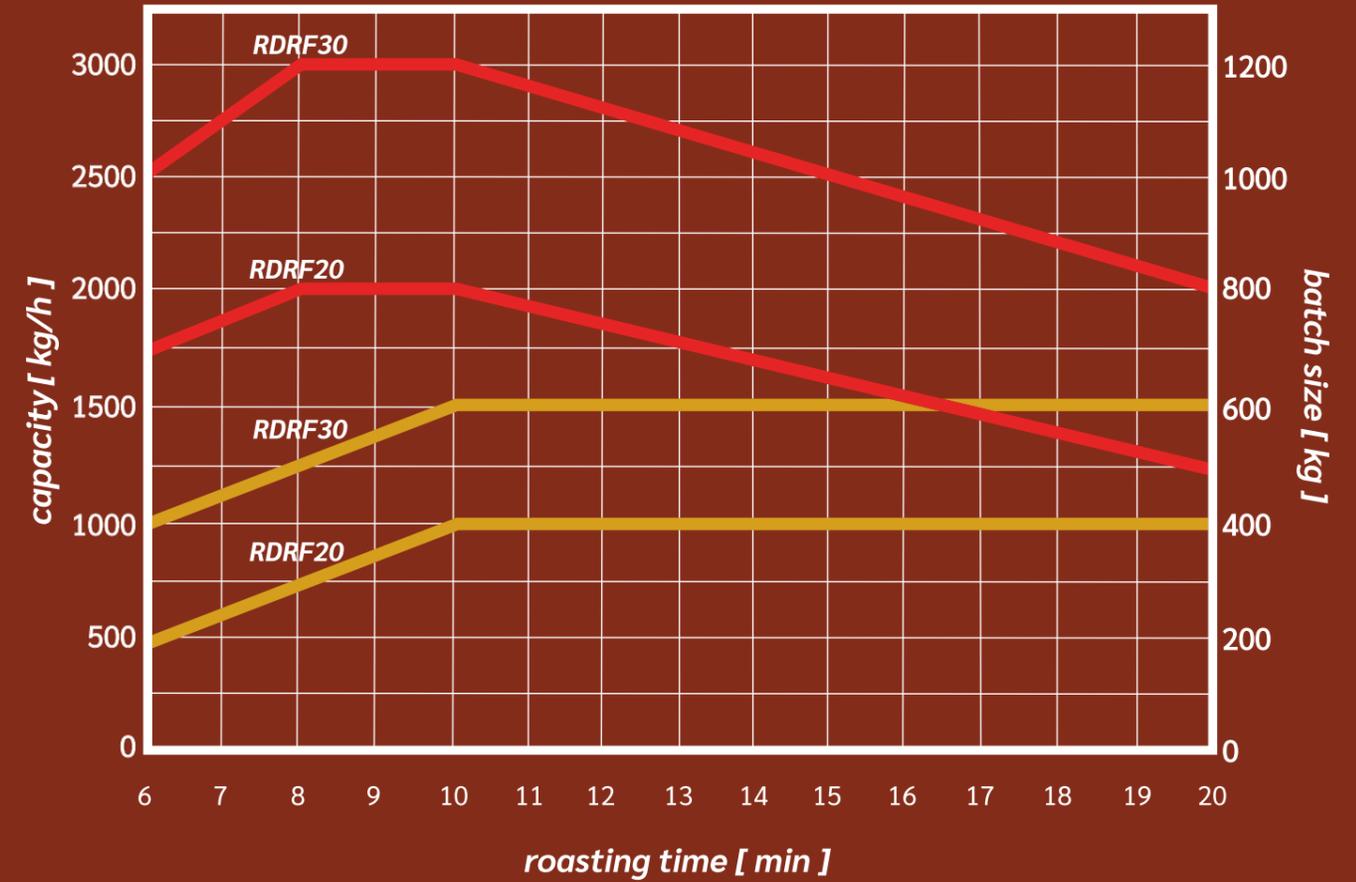
Key features

The RDRF roasters for medium-sized to large roasting jobs offer a maximum hourly capacity of 1,000, 2,000 and 3,000 kg. More information about design details, dimensions and roasting capacity can be found here:

- Roaster and cooling system
- Water buffer tank
- Smoke burner
- CO monitoring
- SCADA control system



Output diagram coffee
RDRF 20/30



Options – even more possibilities

- Transport from cooler with air lifter, bucket elevator or disc conveyor
- Green coffee preheating
- Exhaust air treatment by afterburner or catalyst
- Cooling exhaust air treatment
- Water network armature integrated in machine body or external
- Chaff processing
- Individual colouring
- Various control system solutions

	RDRF 10	RDRF 20	RDRF 30
Roasting time (min)	6–20	6–20	6–20
Batch size (kg)	100–200	300–400	400–600
Capacity up to (kg green coffee/h)	1.000	2.000	3.000
Dimensions A · B* (mm)	4.900 · 10.500	6.850 · 14.200	8.300 · 17.000
Dimensions H* (mm)	4.000–7.200	6.100–7.500	6.500–8.100



DRUM ROASTER SERIES RDRF – MID-SCALE

With the midscale version of our RDRF we have taken the advantages of an industrial machine taken to a smaller scale and made them available for small and mid-sized productions

INSPIRING IDEA IMPRESSIVE TECHNOLOGY

Flexibility

Outstanding creative freedom

Reproducible results and endless possibilities for flavour development

- Most flexible options for hot air feeding by use of a bypass: parts of the air can be fed past the drum to roast special profiles
- Optional operation in a recirculating, partially recirculating or non-recirculating manner
- Individually adjustable drives for flexible regulation in line with your recipes

Cooling

Fast and gentle

Our innovative cooling system is designed for most effective and careful handling of your roasted coffee.

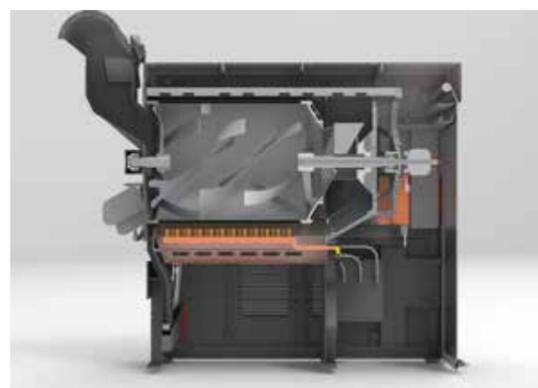
- Closed cooler and cooler bottom
- guided and even cooling air distribution
- reduced movement of roasted beans
- stepless regulation of supply and exhaust air
- stainless steel design
- collection drains for cleaning agent allow wet cleaning

YOUR PREMIUM FOR COST-EFFICIENT PRODUCTIONS

Variant

With planar burner

The RDRF is also available with a planar burner underneath the roasting drum. This is an even more cost-efficient solution for lean, yet modern coffee productions.



	RDRF 1	RDRF 2,5	RDRF 5
Roasting time (min)	6-20	6-20	6-20
Batch size (kg)	20-25	40-75	80-130
Capacity up to (kg green coffee/h)	100	250	500



Design

Clean and clever

We took care for a smart layout and a most hygienic Production

- full cladding for a safe and clean machine environment
- large hatches for inspection, easy cleaning and maintenance
- large roller shutter at the back
- compact layout that includes part of the peripheral equipment
- high grade materials and excellent production quality for a long service life

Control

Everything well in hand

Our modern, fully automatic control systems make it possible for you to operate the RDRF roasting machines cleanly and reliably.

All relevant operating parameters are recorded and displayed on the operating panel. There are several options for operating the control systems: directly on the machine or from the central control center; using a touchscreen PC or PC-based operating station.

The use of a SCADA system ensures the optimum ease of operation and extensive, detailed documentation. All the necessary parameters of the batches produced are saved and can be accessed or evaluated at any time.



Equipment

Variable and according to your needs

- manual or fully automatic control system
- tailor-made exhaust air treatment
- Individual concepts for complete productions with storing and automatic feed or manual feed from bags



MORE THAN AN ORDINARY DRUM ROASTER

Drum roasting

Simple and flexible

The DR unites the drum roasting principle with an innovative heating system that makes it applicable for all purposes. While the DR is a common drum roaster from the outside it contains various features that ordinary drum roasters don't have.

The bypass in the hot-air feed enables you to flexibly guide hot air into the product. Portions of hot air can be fed past the drum to roast special profiles. This means, for example, that no disturbing residual heat prevents the regulation of the roasting process. At the same time, the volume of exhaust air to be treated is reduced. You can operate the roaster in a recirculating, partially recirculating or non-recirculating manner which gives you all options for targeted roast degree development.

Based on our customers' experiences we developed the DR as cost-efficient instrument for a very flexible usage.

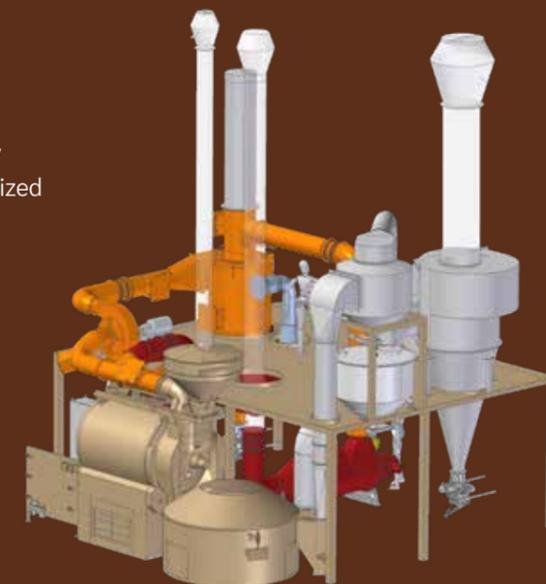
TECHNICAL DATA

Options

Even more possibilities

The roaster and control systems in the DR series can be optionally supplied with additional features that allow for even more customized experiences. These include, for example:

- Pre-heating of green coffee
- Different conveying system (air lifter, bucket elevator or cable conveyor)
- Service and maintenance packages



DR DRUM ROASTER

The advantages of drum roasting improved and united in one machine: the DR series (= drum roaster) is your solution for cost-efficient state-of-the-art roasting. The DR is designed for the needs of largescale roasting companies, ambitious newcomers as well as gourmet roasteries. Our solid technical layout combined with an innovative heating system are designed for a maximum of performance including the flexibility of modern roasting processes.

DR 15

Roasting time (min)	8–20
Batch size (kg)	240–300
Capacity up to (kg green coffee/h)	1.500



CONTINUOUS ROASTING WITH MAXIMUM EFFICIENCY

High Performance

Homogenous results

The RCRF (Roaster, Continuous, Recirculation, Flexible) combines efficient volume production with convenient fully automated operation. Continual filling with small batches enables continuous operation with no stops and a high output.

With a performance range of 2,500 kg/h to 3,500 kg/h, the RCRF is ideal for energy-conscious, large scale roasters and long runs. Even with lower quality green coffee, consistent results are still delivered, which also makes it an excellent tool for instant coffee production. If the product quality fluctuates, you can still roast reliably and evenly because each batch is weighed before it is poured in. Different green coffee densities can therefore be balanced out.

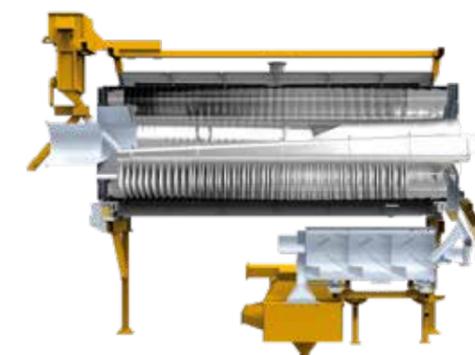
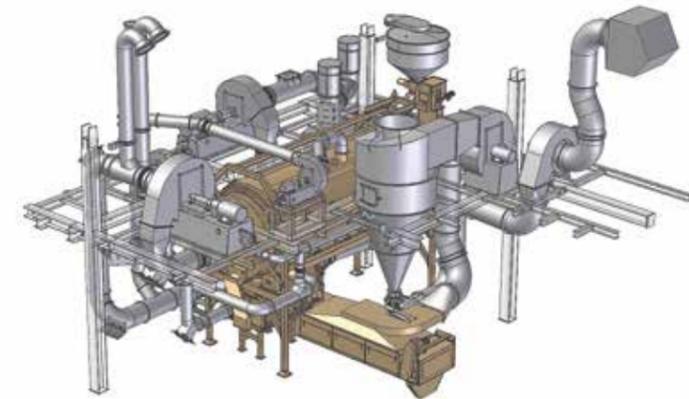
The RCRF is operable in a recirculation manner which leads to less consumption of energy. The RCRF enables you to perfectly master the skill of economic production with optimum, consistent roasting results



RCRF CONTINUOUS ROASTER

The RCRF is the ideal roaster for large-scale roasting. The continuous process allows cost-effective roasting with consistent quality across the entire range of green coffee qualities. Several hot air conduction options enable you to flexibly create the desired aroma and flavour.

RCRF: Perfect for volume production, “long runs” and instant coffee ... while also extremely energy efficient and clean.



Separated processes
Roasting, quenching and cooling are separated functional units to avoid interferences

	RCRF 25	RCRF 35
Roasting time (min)	5-12	5-12
Capacity up to (kg green coffee/h)	2.500	3.500



GRD – 2-STAGE GRINDER FOR VARIOUS GRINDING DEGREES

Our roller grinder GRD grinder is your flexible tool for all grinding degrees from Espresso to coarse coffee. Designed for high-durability the GRD offers you efficiency without compromise. The construction details assure a clean process, avoiding residues. Large hatches make the cleaning of the grinder very easy. Further assets for you are the easy handling and safe operation of our GRD.

Benefits of the GRD series

- dust-tight design with pneumatic seals of the doors
- reproducible and constant grinding degree
- large and easy to open hatches
- easy maintenance
- feeder and compactor in stainless-steel
- safe handling by automatically closed doors during operation
- speed monitoring on all rotating rolls
- clean und solid cladding

TE SERIES – 3-STAGE GRINDER FOR FINE GRINDS

Grinds all coffees up to superfine grinding degrees

Features

- Continuous roll adjustment for all degrees of grind
- Gap adjustment by servo-controlled activators
- Monitorized variant gap value during operation
- Constant low ground coffee temperatures (below 40 °C)
- Independent drive and cooling for each level
- Sample spoon for each level of grinding
- Alarms are monitorized on the touch panel



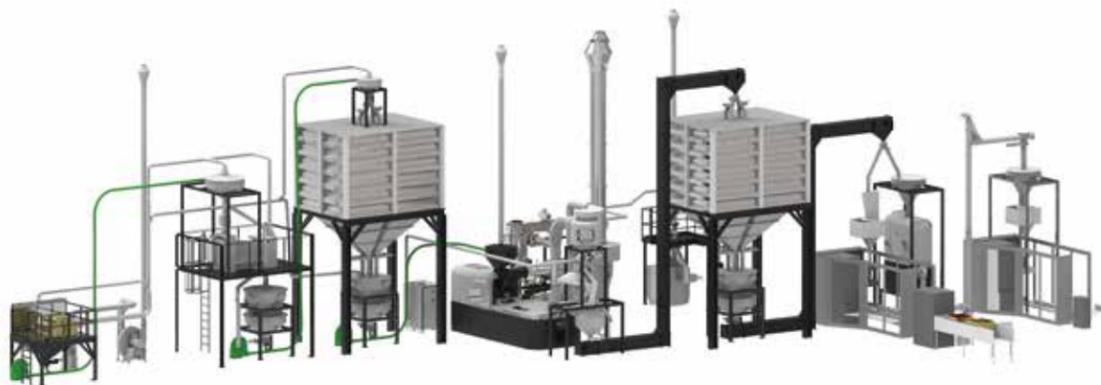
GRINDER SERIES

	GRD 30	TE 11
Grinding capacity (kg/h)	700–3.200	1.000–3.400
Roller length (mm)	800	800

PLANT TECHNOLOGY

Plant planning and Engineering

You can rely on our many years of experience!
From turn-key projects to single processing aggregates we find the best possible solution.
The individual plant components such as roasting machine and silo, the conveying systems of green and roasted coffee and the efficient use of the available space are planned and determined on a customer-specific basis.
We can always plan your line in a basic, an economy or a premium processing line version:



We plan and design processing lines according to your actual requirements and possible future needs:

- Coffee types (green and roasted) variability
- Product specific focus topics such as breakage rate, aroma protection, moisture, density ...
- Maintenance and cleaning requirements, accessibility
- Future proof investments: Expandability and exchangeability



COMPLETE PROCESSING LINES

High quality processing of coffee requires perfect interaction between all components involved. All units of a plant have to be optimally harmonized with each other. Following these requirements IMS-Ritter offers – besides modern roasting machines – turn key solutions for all production units, from reception of grey goods to storing of products to be sold. Whatever you may need – storage silos, conveying, roasting plant or grinder – IMS-Ritter provides you with the technical solution you require. We attach great importance to the integration of your own ideas into the projection. This individuality in consulting enables IMS-Ritter to deliver high quality in every single component and to guarantee that all units will perfectly harmonize.

Around the heart of every production, the roasting machine, IMS-RITTER delivers all components necessary for complete processing lines

- Green coffee reception
- Storing
- Conveying
- Weighing
- Roasting
- Cleaning
- Grinding
- Modernization
- Chimney technology
- Assembly
- Services
- Control systems



SUSTAINABLE COFFEE PRODUCTION

CLEAN AND ENERGY-EFFICIENT

We take responsibility for greener and more sustainable processing of coffee.

That's why we are constantly working on further advanced technologies and provide

- Solutions for alternative energy sources or an energy mix (LPG, Dual-fuel-burners, ...)
- Green-coffee-preheating
- Recirculation of roasting air
- Cleaning of exhaust air meeting your local emission regulation values of CO, NOx, but also cleaning of visible fumes and odor.
- Additional cooling exhaust air cleaning
- Cleaning of dust
- Aggregated data on energy consumption and relevant processing parameters as a basis to define sustainability measures

CHAFF PROCESSING

Processing of Coffee Skins for small, mid-scale and big productions

A safe solution

The safe and efficient processing of coffee chaffs to briquettes or pellets is part of every modern coffee roasting facility. The bigger the production capacity the more important is the coordination of capacities and conveying routes. An important aspect is also the existing fire risk, which can be minimized by an integrated spark detection and extinguishing system. In accordance with these requirements, IMS-RITTER offers integrated solutions for the processing of coffee skins to briquettes or pellets and a safe and trouble-free production.

A coffee skin processing solution can be offered for any production capacity from small to industrial. Future extensions of a plant can be taken into account in the design of the chaff processing line.



IMS-RITTER – OUR RANGE OF SERVICES

Our service team is ready to give you support and provide solutions for any service needs that may occur.



Assembly | Turnkey project

- We coordinate the work steps of individual departments in the company such as steel construction, software suppliers, structural engineers – from completion to the turnkey handing over of the plant



Modernization

- Update to today's safety standards
- Level-up to up-to-date visuals and evaluations, such as dynamic temperature curves, ROR curves, an extension of the recipe management or update of outdated control systems like S5



Instruction | training

- Staff trainings, with individual topics (safety training, cleaning/maintenance training)
- Process or recipe optimization, for example for energy-saving production to advice on developing new coffee products and recipes.



Maintenance | overhaul

- Condition check-up with detail report on necessary spare parts and repairs as a cost-effective measure to maintain productivity.
- Complete overhaul of machines bringing them into a condition that resembles new ones.



Service-Level-Agreements

- Maintenance on-demand
- Individual maintenance contract
- Defined reaction times for remote service and on-site support



Repair | Spare parts

- **Troubleshooting:** Maintaining your productivity is our top priority.
- **Spare and wear parts:** We provide a list of critical spare and wear parts for your plant and ensure that these are always available for the fastest possible delivery. In consultation with you, we can also keep critical spare parts such as roasting drums in stock for you.



WHAT OUR CUSTOMERS SAY



“ The RDRF5 is a state-of-the-art drum roaster, that convinced us by it’s high flexibility, precision and smart automatization in a fresh, modern design. It helps us to create, track and repeat a vast variety of roasting profiles – from third wave specialty roast to dark “Italian-style” espresso roasts – in a stunning consistency. Furthermore, it’s energy – efficient technology, as well as it’s reliable safety system, have been essential issues for a final buying decision.

– Oliver Braun, Kaffee Braun GmbH, Germany

“ We have determined IMS as our key-supplier for the roastery, because of the solidity of the machines and the clean machine-environment. Our long-term relationship proves to be mutually beneficial.

– Mr. Mehmet Kurukahveci, Mehmet Efendi Kurukahveci, Turkey



OUR CAREFREE PACKAGE – WE ARE HERE!

IMS-RITTER stands for fast, efficient and customer-oriented service. Worldwide. From the very beginning we are dedicated to being a partner at our customers’ side. We take care of keeping your production’s downtimes as low as possible and safe costs.

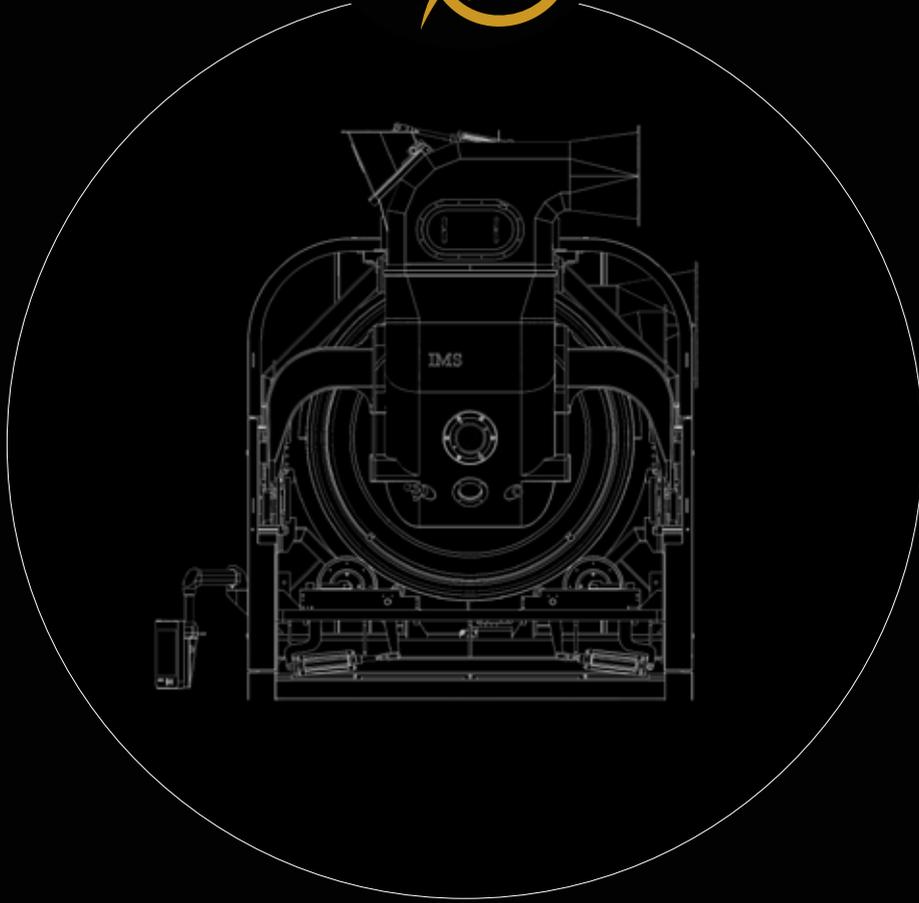
Our promise

- Fast in reaction times and on-site-help
- Competent remote service available immediately
- Cost-efficient solutions



“ Thanks to the high consulting competence of IMS-RITTER, the aspects that are particularly important for us, such as gentle processing and high quality, were excellently implemented in the production plant. With the result, refurbished roasters and a new RDRF roaster as well as a complete processing plant, we were able to convince ourselves of the excellent price-performance ratio that IMS offers us. Furthermore, we can always rely on the service and fast response of IMS-RITTER. We are happy to have a reliable partner who meets our high quality standards and is always “close to the customer”.

– Mr. Christian Horn, Max Meyer & Max Horn GmbH, Germany



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