



IBO – Extraction Hoods and Filter

For the capture
and cleaning
of fumes from
induction crucible
furnaces



The ***Tornado***[®] - System,
the ***Filter***-System
and more!

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Notes:

IBO Anlagenbau GmbH

has been planning, designing and manufacturing comprehensive dust extraction technology solutions, specialized machines for the foundry and metallurgical industries and filter systems since 2002.

Our focus is furnace dedusting using specially developed and patented Tornado extraction hoods.

IBO-Anlagenbau GmbH specializes in this field and possesses comprehensive expertise and extensive experience. This and the continuous development of our own extraction technology has made the IBO-Anlagenbau GmbH one of the world's leading manufacturers of ventilation systems in this area.

Benefit from customized, individually tailored solutions from a single source - from design and engineering to manufacturing to installation and commissioning, and an after-sales service including maintenance, repair and supply of spare parts.

Another company focal point is the planning, development, design and manufacture of tailored designs according to customer requirements.

With us, your ideas will always be effectively realized and implemented!





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IBO extraction hoods are used for detecting the fumes of induction or melting and holding furnaces.

The covers are designed specifically for the foundry area. IBO hoods are aerodynamically designed and especially constructed for harsh conditions in the melting area, meaning they are fully prepared to meet the high demands of daily use in foundries and steel mills.

Efficient capture of the flue gases, longevity of the hoods, and their ease of use and maintenance, testify to the high quality and years of experience in design and manufacturing.

Because of their adaptive designs, IBO hoods are ideal for retrofitting existing furnaces as well as for new installations. They are also available in different types and designs. This ensures that the best solution will always be provided to meet the individual requirements of the customer, tailored to the particular furnace, the work processes and the surrounding environment.

Discover the many possibilities!



All Tornado[®] benefits at a glance:

Efficient extraction of the fumes in all phases of operation

Energy saving by an integrated furnace cover, air flow control and an optimized design for less false air, less pressure loss

Robust design, easy to maintain

Custom made – individually adapted to the furnace, the melting area, charging wagon, ladle, operating process etc.

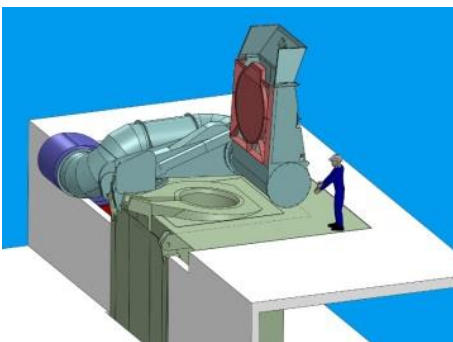
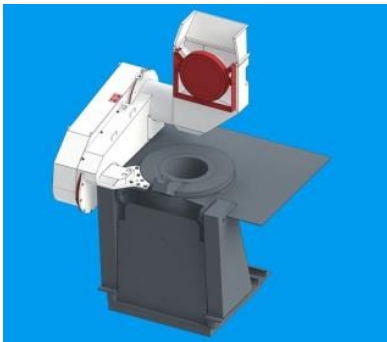
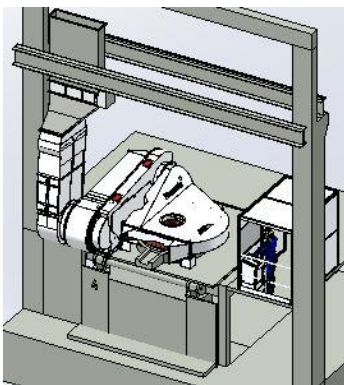
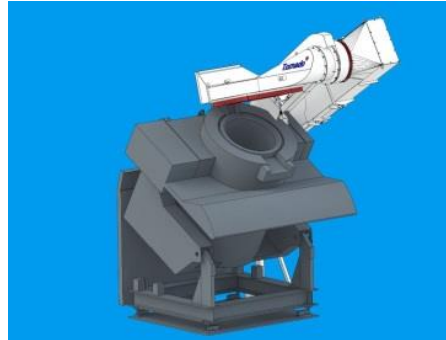
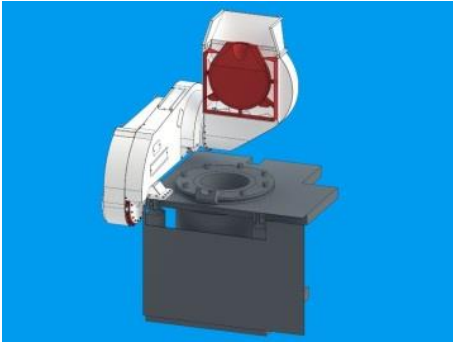
Ease of operation - Hydraulically operated, no mechanical interlocks: The hood is moved by the operator by using buttons or levers in the control booth

Safety valves to prevent the hood from falling in case of a pressure drop

Good access and visibility to the melting bath and the furnace spout



Example



Extraction Hood

Tornado K[®] with one duct is an all-rounder!

- Single duct
- Double swiveling
- Suitable for induction furnaces of all sizes
- Connection to the pipeline in the pivot axis of the furnace

Tornado TK[®] with a telescopic duct for a rear tipping function!

- With a telescopic duct
- Double swiveling
- Suitable for induction furnaces of all sizes
- Connection to the pipeline can occur in the pivot axis of the furnace or outside

Tornado C[®] the chameleon of the hoods, fits perfectly in any environment!

- Connection to the pipeline – independent of the fulcrum and furnace platform
- Telescopic duct
- Double swiveling
- Suitable for induction furnaces of all sizes

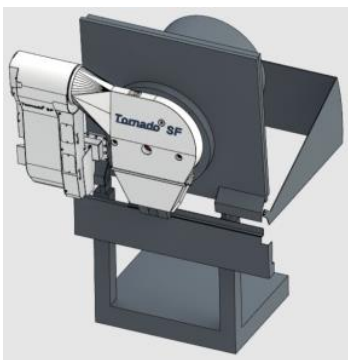
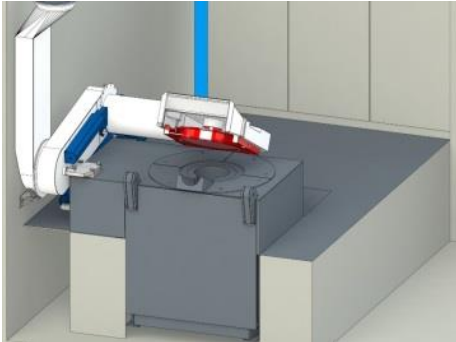
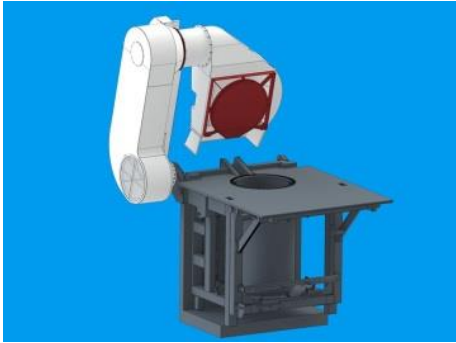
Tornado L[®] is the light version! Cheap, but effective dust removal.

- One cylinder
- Double swiveling
- Changes the ladle direction by operating a lever on the canal
- Connection to the pipeline in the pivot axis of the furnace

Tornado H[®] captures particularly hot flue gases, for example, in steel making

- Round tube duct
- Double swiveling
- Suitable for induction furnaces of all sizes
- Connection to the pipeline depending on the version
- Also available in 'special' versions (SH)

Example



Extraction Hood

Tornado XXL® captures large quantities of air, for example in magnesium treatments of the liquid iron or when charging critical material

- Captures large volumes of air
- Double swiveling
- Suitable for induction furnaces of all sizes
- Connection to the pipeline depending on the process, and available as XXL-K, TK and -R

Tornado Mini® for furnaces with a small crucible diameter

- Manually actuated
- Double swiveling
- Quick installation
- The pipe connection is made in the furnace pivot axis

Tornado SO® for lateral charging

- Side opening
- Suitable for induction furnaces of all sizes
- Pipe connection depending on version
- SO-1 a pivot axis (sideways)
- SO-2-V two pivot axes (side and front)
- SO-2-H two pivot axes (side and rear)

Tornado SF® for very small ladles

- Flat design allows clearance for crane rope
- Double swiveling
- Connection to the pipeline in the pivot axis of the furnace

Looking for more extraction solutions?

Visit our homepage and send us a request with your needs!

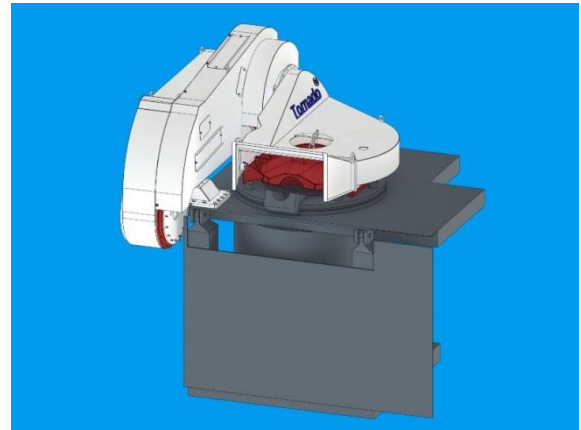
We'll be happy to develop an individual extraction concept together!

We are also open to and interested in any suggestions and new ideas!

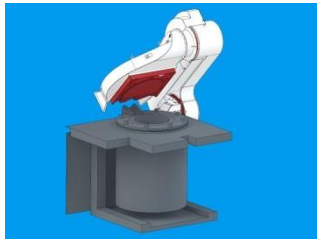
Extraction Hood

Tornado®

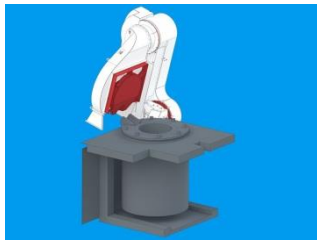
K



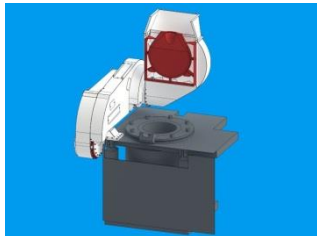
Charging



Max. rear side opening



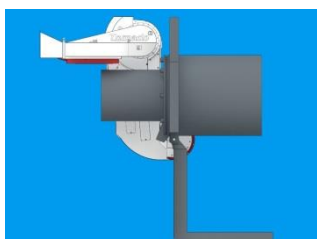
Max. front side opening



Pouring



Ejection of the lining

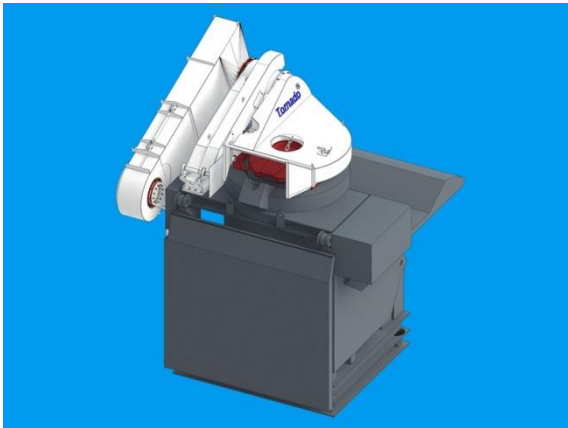


Simply rugged

The Tornado K is the most frequently used 'all-rounder.'

The hood is suitable for furnaces of all sizes. The connection to the extraction line is carried out in line with the furnace pivot axis. If necessary, a cut in the furnace platform may be required for this purpose.

- **Double swiveling (front- and rear)**
- **Applicable for crucible induction furnaces of all sizes**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Extraction Hood

Tornado®

TK

For furnaces with rearward tilt

The Tornado TK exhaust hood is used for furnaces that have a rearward tilting function for slagging.

It has a side-mounted telescopic duct and is suitable for furnaces of all sizes.

The connection to the extraction line occurs in line with the furnace pivot axis. If necessary, a cut in the furnace platform may be required for this purpose.

- **Double swiveling (front- and rear)**
- **Applicable for crucible induction furnaces of all sizes, especially for furnaces with back-tilt function**
- **Can connect to the exhaust pipe in the swiveling axis of the furnace or above and behind**
- **Effective exhaust in all operating phases**



Charging



Max. rear side opening



Deslagging with suction



Max. front side opening

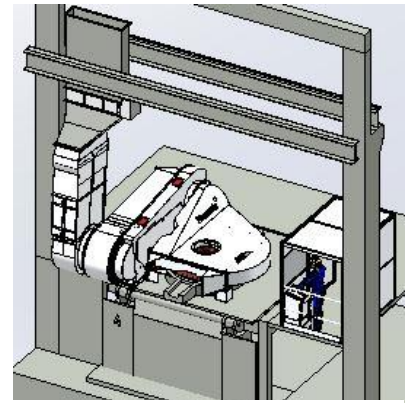


Pouring

Extraction Hood

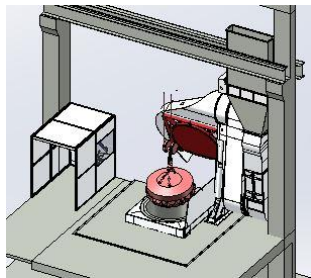
Tornado®

C

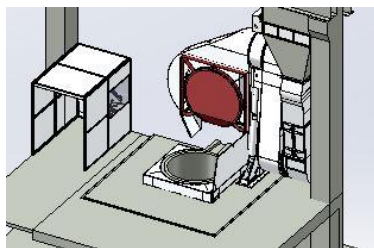


- Example Hood -

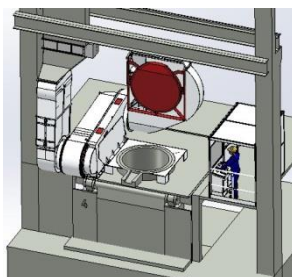
Charging



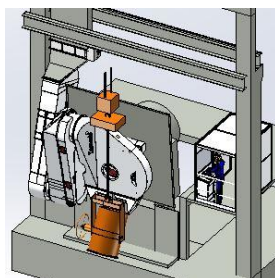
Max. rear side opening



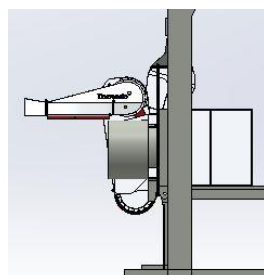
Max. front side opening



Pouring



Ejection of the lining



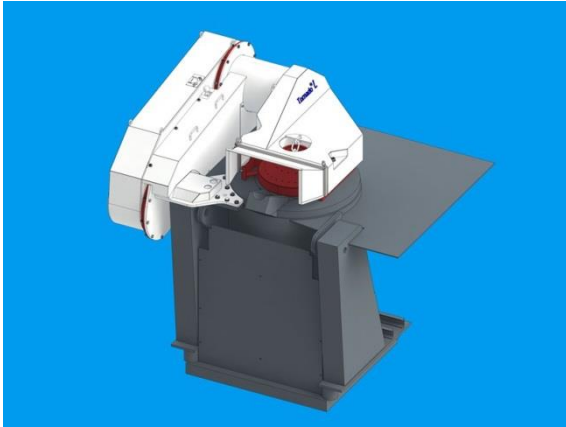
Ideal where space is limited

The Tornado C is often used in confined spaces or for retrofitting existing furnaces. It is equipped with a telescopic duct.

The connection to the pipeline needs not to be in line with the furnace pivot axis.

The connection point can be further moved upwards and backwards. Thereby, no parts of the hood protrude over the front edge of the furnace and no cut in the furnace platform must be made for the pipe connection.

- **Double swiveling (front- and rear)**
- **With telescopic duct**
- **Applicable for crucible induction furnaces of all sizes, especially suitable to retrofit furnaces**
- **Independent of furnace platform and swivel axis**



Extraction Hood

Tornado®

L

For small to medium furnace sizes

The Tornado L is used for smaller furnaces with a moderate furnace diameter.

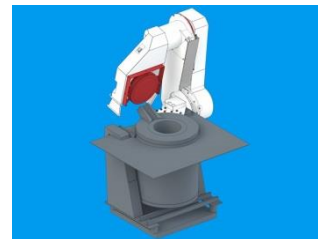
By contrast, however, it only has one cylinder. The pivot direction of the hood can be switched with a lever on the duct.

It has the same extraction behavior and efficient detection of the flue gases as the other Tornado hoods and can also be opened forward or backward.

- **Double swiveling (front- and rear, but not simultaneously)**
- **One cylinder**
- **Changing of the movement direction by an easily movable lever on the hood**
- **Applicable for furnaces with a with an average diameter of the crucible**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Charging



Max. rear side opening



Max. front side opening



Pouring



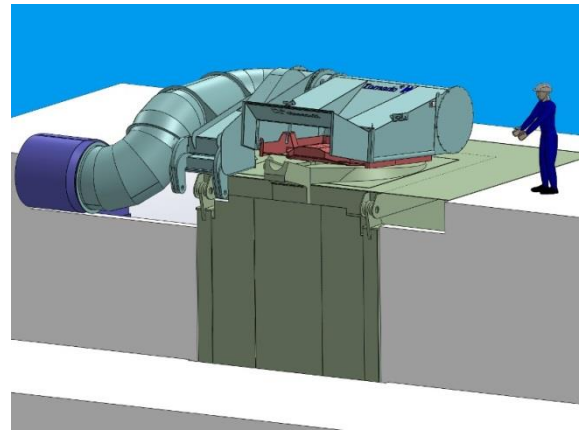
Ejection of the lining

Extraction Hood

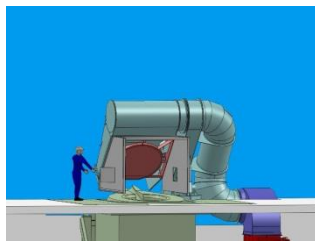
Tornado®

H

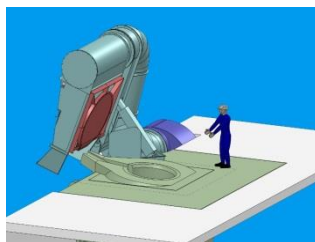
high or flat furnace body



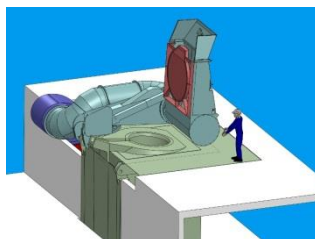
Charging



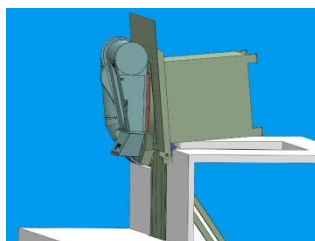
Max. rear side opening



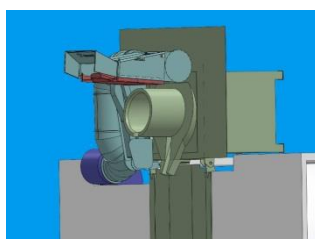
Max. front side opening



Pouring



Ejection of the lining



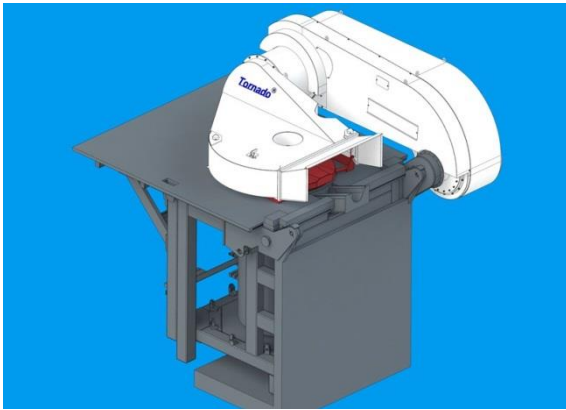
To detect hot flue gases

The Tornado H, with a high or flat hood body, has a tailor-made high exhaust temperature design.

This makes it an ideal detector for dusts and gases from induction melting furnaces, for example in steel production or wherever oil-coated, dirty scrap is used that causes high exhaust temperatures.

The dome is aerodynamically optimized for the best possible detection and longevity, constructively aligned with the high temperatures and built especially durably due to high stresses.

- **Flat hood body to allow pouring into a ladle fixed to crane without pushing it away**
- **Double swiveling (front- and rear)**
- **With pipe duct**
- **Special design for the extraction of fumes with high gas temperatures, for example, from steel melting furnaces**
- **Applicable for crucible induction furnaces of all sizes**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



- Example Tornado XXL-K -

Extraction Hood

Tornado®

XXL

Also available as a -TK or -R

For capturing particularly large amounts of flue gas

The Tornado XXL is installed in locations where a particularly large extraction volume for trapping gas is required - for example, in the production of ductile iron in the pour-over with magnesium treatment of the liquid iron in large ladles in front of the furnaces, or in the use of coated, contaminated scrap.

The Tornado XXL is available in versions K (with side duct), TK (for furnaces with rearward tilting functions) and C (in confined spaces).

- **Double swiveling (front- and rear)**
- **Especially for the extraction of high amounts of fumes and big gas volumes**
- **Applicable for crucible induction furnaces of all sizes, especially, for example, magnesia treatment of the liquid iron in very big ladles in front of the furnace or charging of scrap with a high amount of zinc, oil, coating etc.**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Charging



Max. rear side opening



Max. front side opening



Pouring

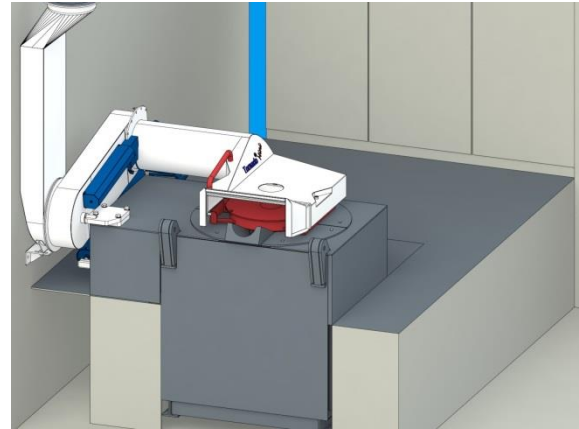


Ejection of the lining

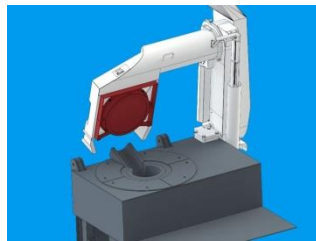
Extraction Hood

Tornado®

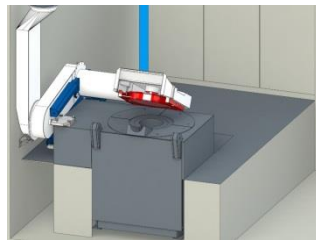
Mini



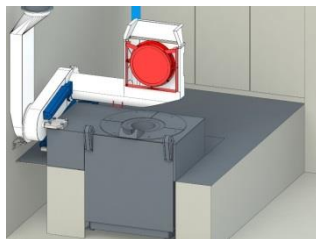
Charging



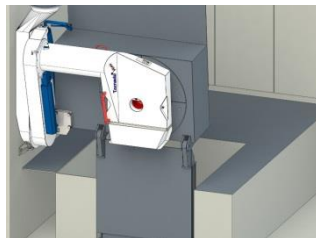
Max. rear side opening



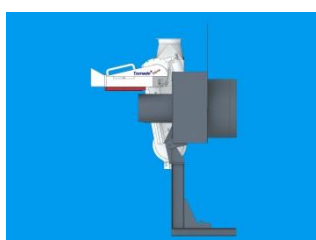
Max. front side opening



Pouring



Ejection of the lining



Manually operated with spring support for small furnaces

Of all the Tornado hoods, the Mini has been specially designed for small furnaces with a small crucible diameter.

This hood is entirely manually operated. The operator is supported by springs when moving the hood.

The hood can be opened in the rear continuously and in the front in predefined positions.

With respect to the efficiency of the flue gas capture, the Tornado Mini offers the same advantages as the hydraulically actuated Tornado hoods.

- **Double swiveling (front- and rear)**
- **Manually operated – springs support the worker in moving the hood.**
- **Fast installation – no electrical or hydraulic connection needed**
- **Applicable for furnaces with a small diameter of the crucible**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Extraction Hood

Tornado®

SO-1

Side opening

The Tornado SO-1 is a side-opening extraction hood. The opening movement takes place via a pivot linkage and a hydraulic cylinder.

The pipe connection is in line with the furnace pivot axis. For this purpose, it may be necessary to cut into the furnace platform.

The hood is suitable for furnaces of all sizes.

- **Swivels to the side (one swiveling axis)**
- **Applicable for crucible induction furnaces of all sizes**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



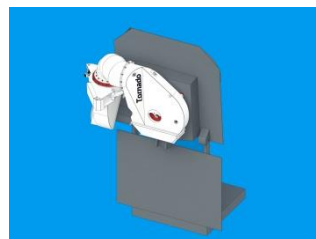
Rear view



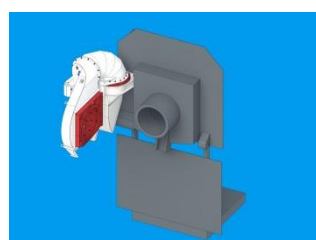
Side opening



Max. side opening



Pouring



Ejection of the lining

Extraction Hood

Tornado®

SO-2-V

Charging



Max. side opening



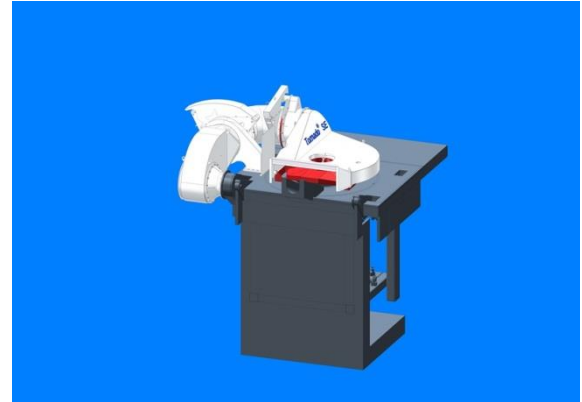
Max. front side opening



Pouring



Ejection of the lining



Side and front opening

The Tornado SO-2-V can both open laterally and at the front. The pivotal movement takes place via kinematics and two hydraulic cylinders attached to the duct.

The pipe connection is in line with the furnace pivot axis. For this purpose, it may be necessary to cut into the furnace platform.

The hood is suitable for furnaces of all sizes.

- **Swivels to the side and to the front side (two swiveling axis)**
- **Applicable for crucible induction furnaces of all sizes**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Extraction Hood

Tornado® SO-2-H

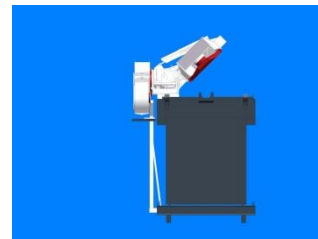
Side and rear opening

The tornado-SO 2 H can open both laterally as well as in the rear. The pivotal movement takes place via kinematics and two hydraulic cylinders attached to the duct.

The pipe connection is in line with the furnace pivot axis. For this purpose, it may be necessary to cut into the furnace platform.

The hood is suitable for furnaces of all sizes.

- **Swivels to the side and to the rear side (two swiveling axis)**
- **With telescopic duct**
- **Exhaust when slagging off**
- **Applicable for crucible induction furnaces of all sizes**
- **Connects to the exhaust pipe in the swiveling axis of the furnace**



Charging



Max. side opening



Max. rear side opening



Pouring

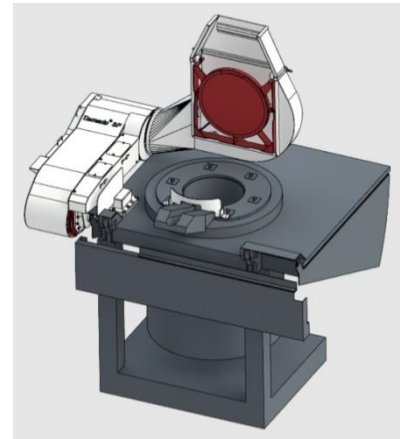


Ejection of the lining

Extraction Hood

Tornado[®]

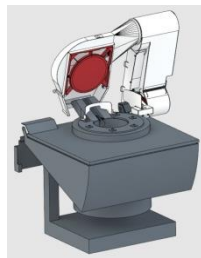
SF



Charging



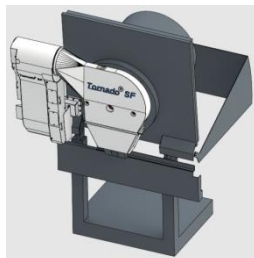
Max. rear side opening



Max. front side opening



Pouring



Ejection of the lining



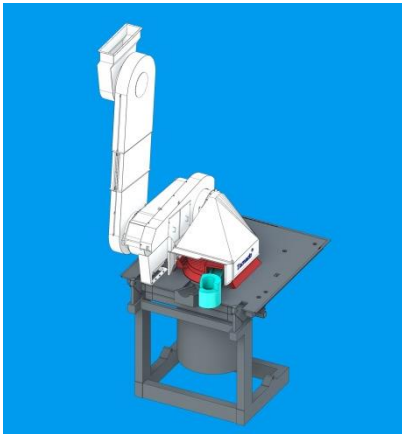
Extra flat for use with very small ladles

The Tornado SF is used where an extremely flat design is required. Such a situation arises for example when pouring occurs in relation to the furnace in very small ladles hanging on the crane.

Thanks to the extra flat design, under these difficult conditions the Tornado SF even provides clearance for the crane rope, so that the furnace can be completely emptied without the ladle being pushed away.

It is suitable for furnaces with small to medium crucible diameters.

- **Double swiveling (front- and rear)**
- **Flat method of construction makes free space possible for crane rope**
- **Applicable for crucible induction furnaces of all sizes, especially for furnaces with back-tilt function**
- **Can connect to the exhaust pipe in the swiveling axis of the furnace or above and behind**



Extraction Hood

Tornado®

SE

'Special Edition' - Tornado hoods

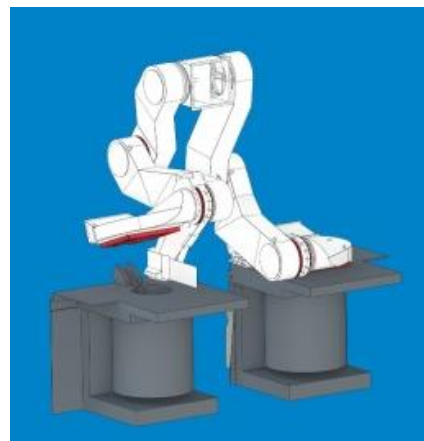
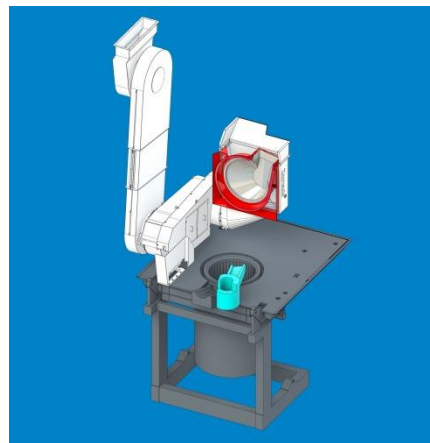
The Tornado SE is designed and built according to the space, furnace and surroundings.

It is an individual, unique item tailored to the customer's wishes.

Benefit from our long experience in design and development!

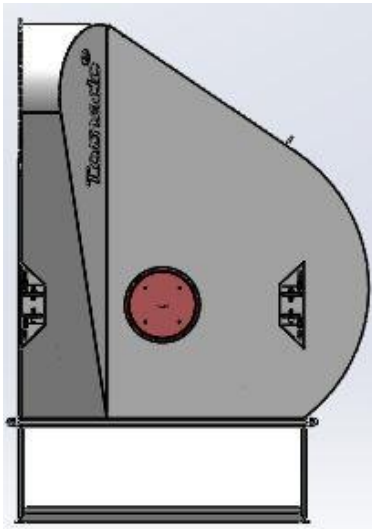
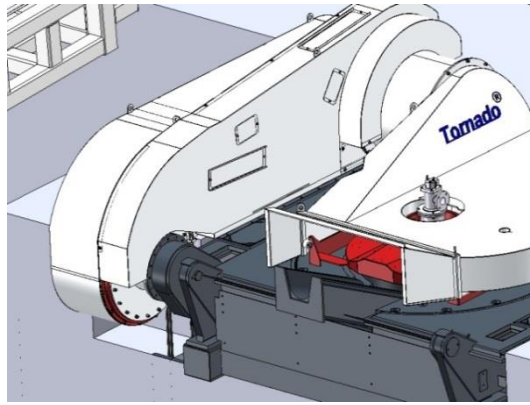
Visit our website, we look forward to your inquiry!

- All kinds of 'Special Edition' Tornado hoods
- Applicable for crucible induction furnaces of all sizes, especially for furnaces with back-tilt function
- Can connect to the exhaust pipe in the swiveling axis of the furnace or above and behind
- Individually und singularly!



Optional equipment for Tornado hoods

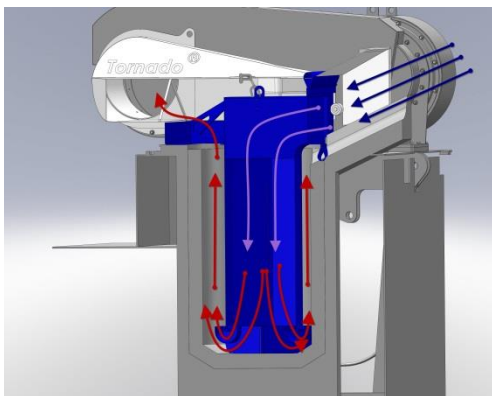
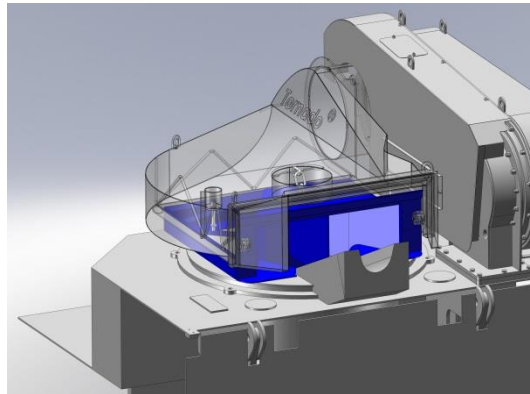
Insert fixture for a gas burner in the furnace cover



A special feature of the Tornado hood is the direct access to the crucible through the furnace cover. This can be provided with an opening. After use, the opening is closed by a burner stone. For example, the furnace can be pre-heated or kept warm with a gas burner with the hood closed. Furthermore, direct access to e.g., magnesium treatment in the furnace, can be used for taking samples or adding chips.

Optional equipment for Tornado hoods

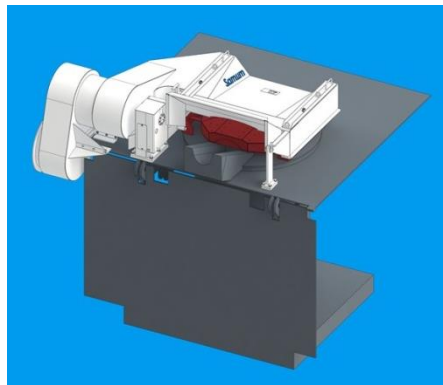
Cooling device



The cooling device provides for the uniform and rapid cooling of furnace refractory lining using the blast furnace exhaust. The device is inserted into the furnace and connected to the hood. The cooler ambient air is drawn in through the front opening and directed through the central pipe downwards. From there it moves along the wall of the crucible upward toward the hood. The lining is cooled and filtered off with extraction and the warm air from the furnace.

Other extraction Hood

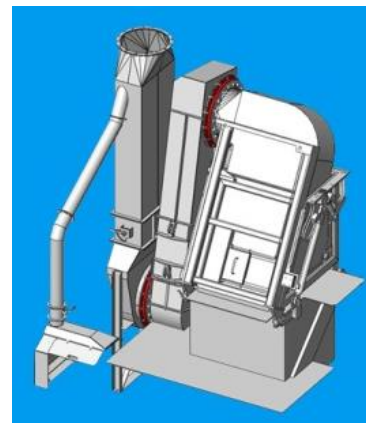
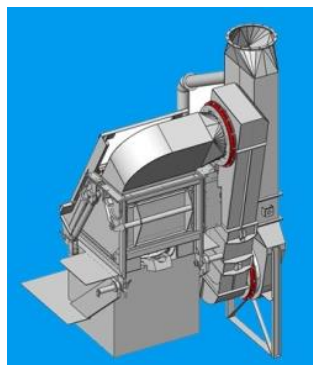
***Samum*®**



The *Samum*® hood is a single pivotal hood with a hydraulic cylinder. It is available in a side-opening or rear-opening design. *Samum*® hoods are equipped with a quick release system to be able to remove the cover quickly and easily in a few steps from the furnace. This is necessary, for example, with the rear opening *Samum*® hood in order to express the lining.

Other extraction Hood

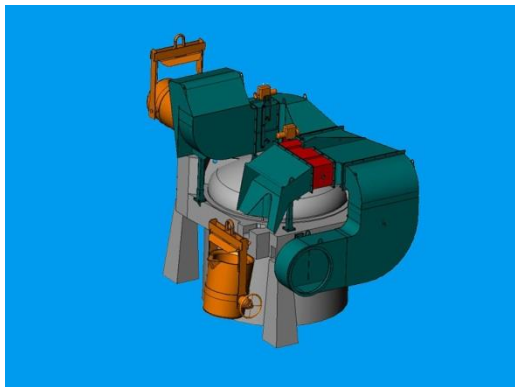
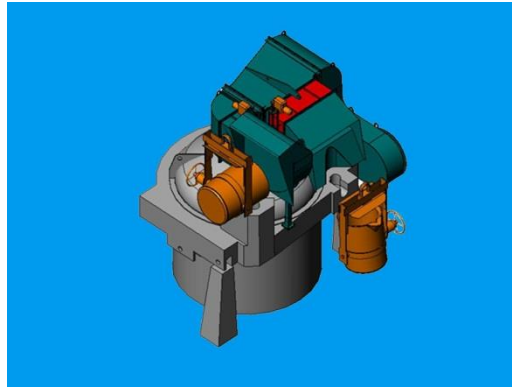
***Hegoa*®**



The Hegoa hood has a closed design for capturing extremely 'critical' fumes. It is hydraulically operated and can pivot forward and backward. The vertically lifted elevator door that is attached to the back allows direct access to the crucible, for example, for charging. An inspection port is integrated in this door. This can be opened by a slide, manually. The door on the front is opened during pouring for detecting the flue gases from the ladle.

Other extraction Hood

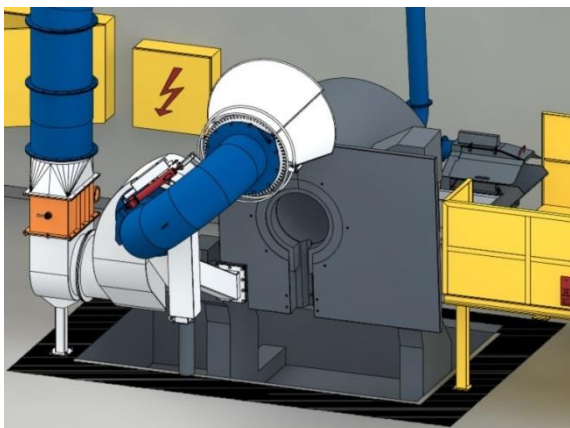
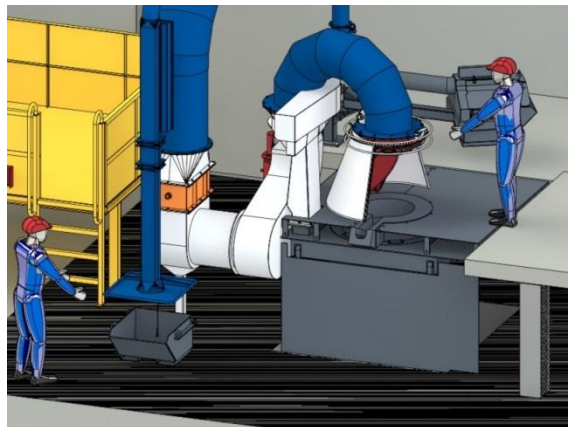
Belat[®]



The Belat hood is used to capture the fumes from castings and discharges (snouts) of holding furnaces. The extraction volume is regulated via an integrated motorized throttle. If necessary, the cap can easily be removed, e.g. for maintenance work on the furnace.

Other extraction Hood

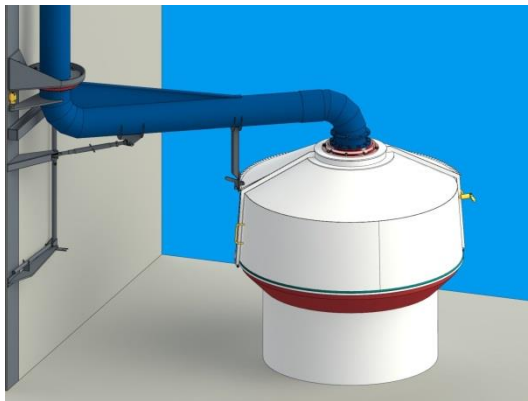
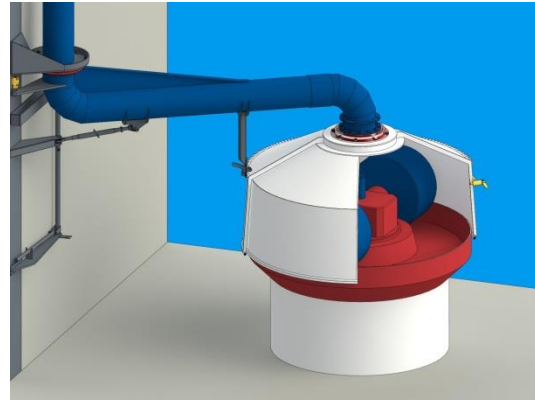
Pivot hood[®]



The rotating hood is mainly used for furnace sampling. It captures the fumes in all phases of operation and allows easy access to the furnace, in particular for scraping the crucible after casting. The hood is opened by the mutual displacement of the shell plates, by hand. The hood can be swiveled backwards by means of a hydraulic function. The integrated furnace cover is also moved hydraulically.

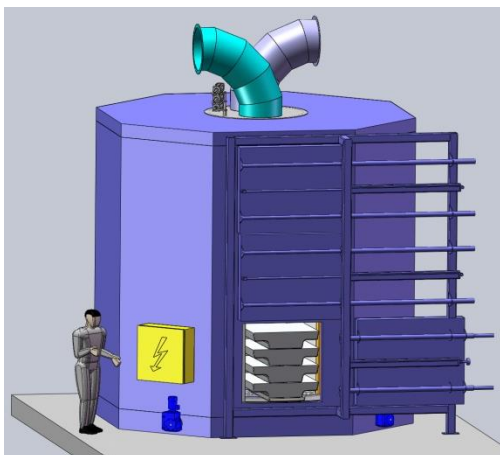
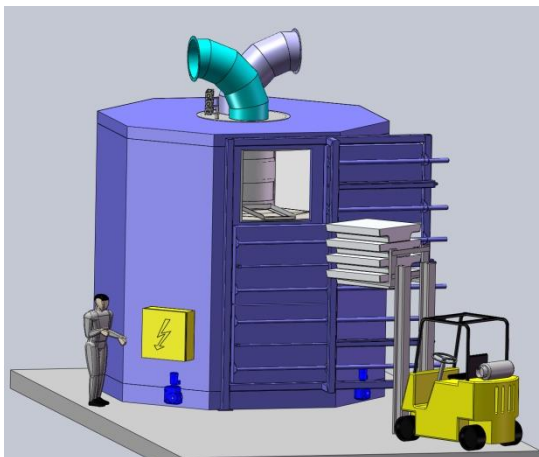
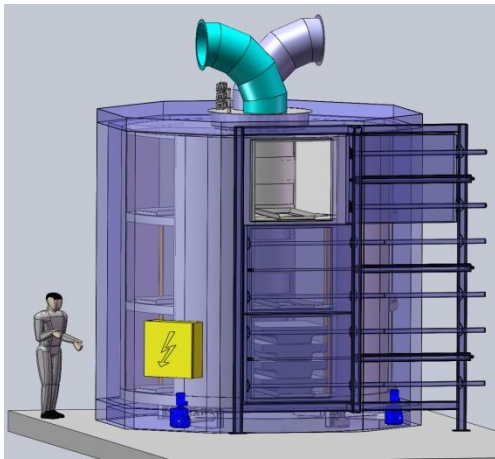
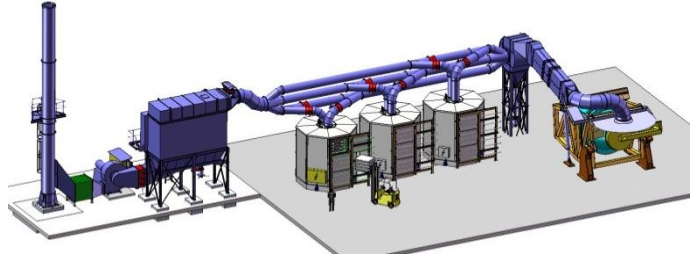
Extraction Hood

Extraction hood for an edge runner



The ladle grinder extraction completely covers the area in which the runners move. It serves to capture dust generated during the grinding process. To open the hood, for example to fill the ladle mill, the shell plates of the hood are shifted toward each other. For even better access, such as for maintenance, the hood can be fully opened and swiveled to the side.

IBO - Dry- Carousel

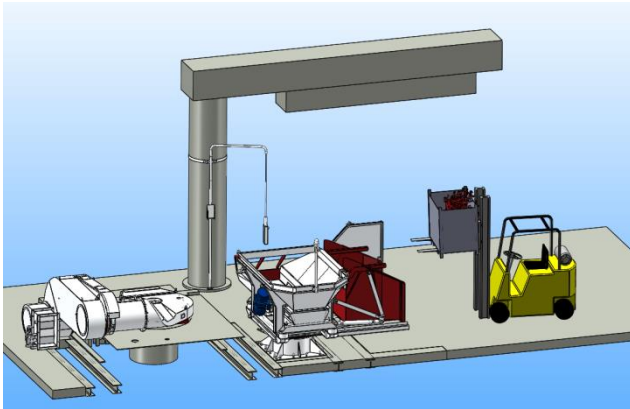


In the dry carousel, clean materials such as aluminum blocks or bars are pre-heated and dried. The exhaust air of the furnace is used for hot air before it enters the filter.

This has two advantages. The material is thereby preheated, dry, and the exhaust air is cooled prior to entry into the filter.

The carousel ensures that the material is dry. During loading and unloading of the carousel, the open chamber is isolated from the heating circuit so that only this chamber can cool down. Furthermore, the carousel ensures that the material is removed in order and reloaded.

- **Correct and safe use**
- **Guarantee for preheated and dry material**
- **No possibility of confusion**
- **Optimum utilization of exhaust air**



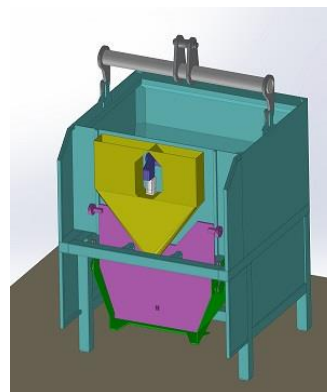
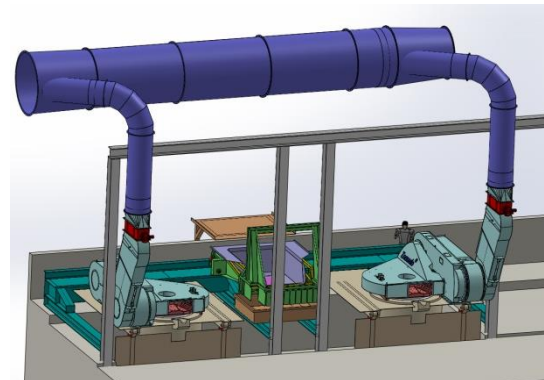
Solutions in the foundry

IBO - Charging solutions

The IBO charging solutions have been specially developed for use with the Tornado hood. They enable the efficient capture of fumes during charging, because they work under the open hood.

Two parallel installed furnaces can use the charging devices. Depending on the access, the charging device can be loaded from the side or from behind.

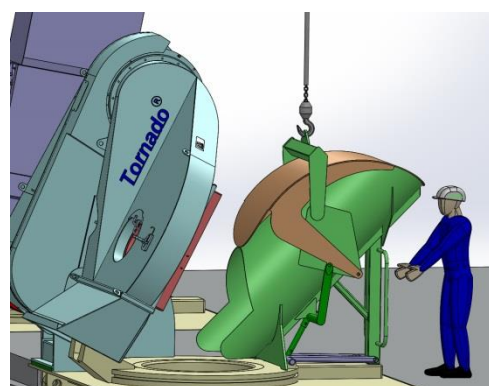
Alternatively, we offer charging buckets, which are used as a monorail crane.



Looking for more charging solutions?

Visit our homepage and send us a request with your needs!

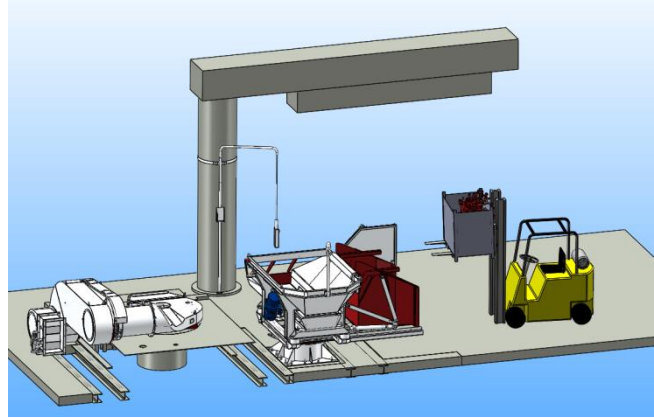
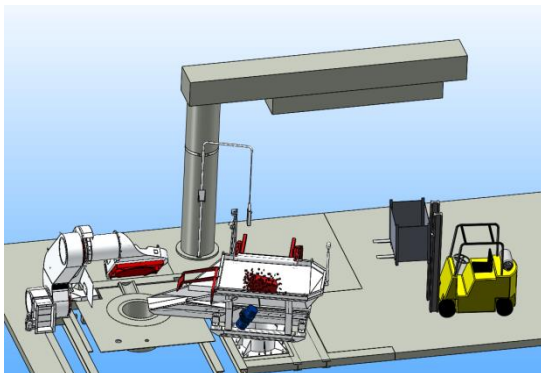
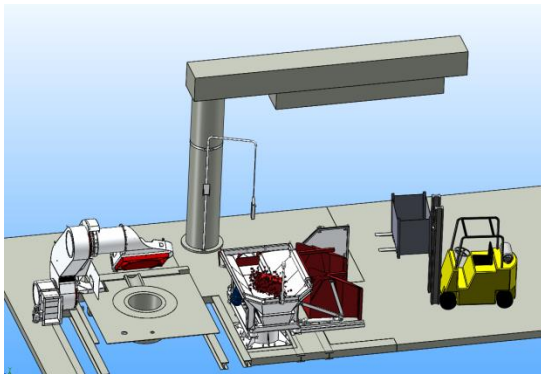
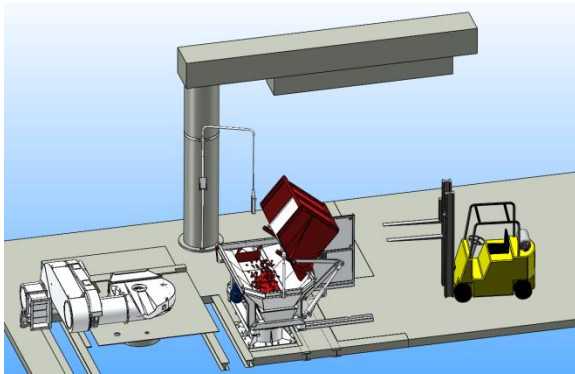
We are happy to work in close cooperation on an individually tailored solution!



IBO -

Charging device

***Suitable for two parallel erected stoves,
rotatable***



The charging device has been specially developed for use with the Tornado hood. It enables the efficient capture of fumes during charging, since the charging device operates under the open hood.

The charging device is mounted on a rotatable platform and can be used for the charging of two parallel installed furnaces of the same size.

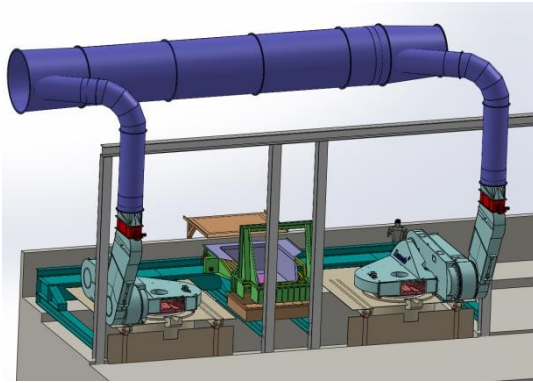
The charging device can be pivoted from the parked position and via a dedicated control to the unloading position (for loading and unloading of scrap). The operator remains at a safe distance from the furnace or charging device.

- **Correct and safe use**
- **Suitable for two furnaces**
- **Independent from monorail use**

IBO -

Charging device

***Suitable for two parallel erected stoves ,
movable***

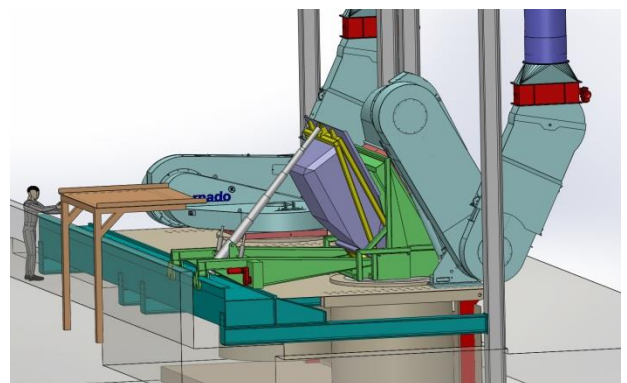
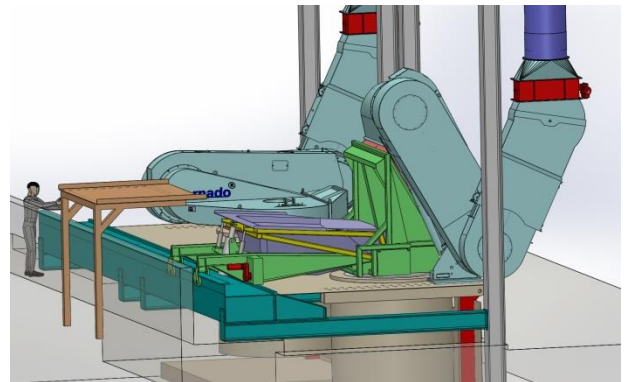
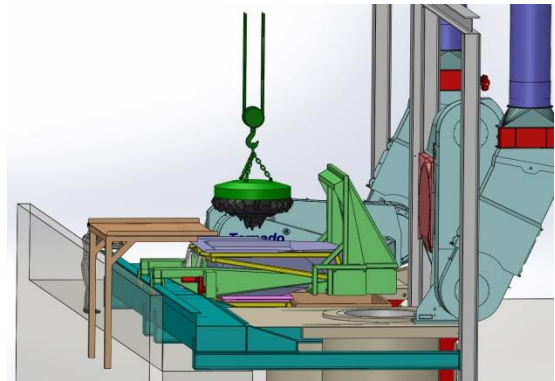


The charging device has been specially developed for use with the Tornado hood. It enables the efficient capture of fumes during charging, since the charging device operates under the open hood.

The charging device is linearly guided and can be moved both laterally as well as forward and backward. Furthermore, it can be used for the charging of linearly arranged furnaces of the same size.

The charging device can be pivoted from the parked position and via a dedicated control to the unloading position (for loading and unloading of scrap). The operator remains at a safe distance from the furnace or charging device.

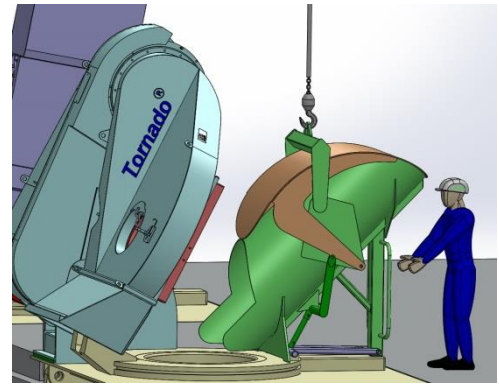
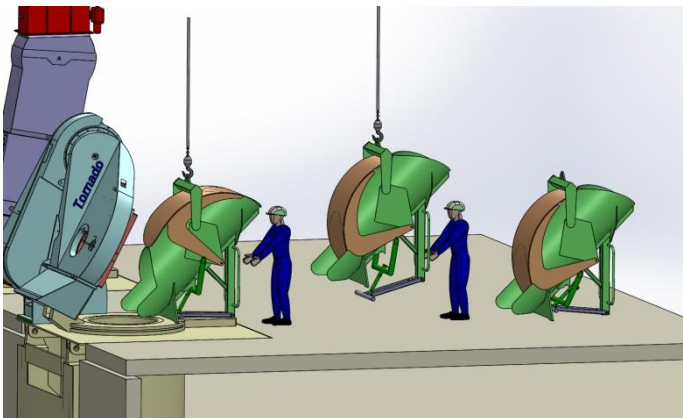
- **Correct and safe use**
- **Suitable for two furnaces**
- **Independent from monorail use**



Solutions in the foundry

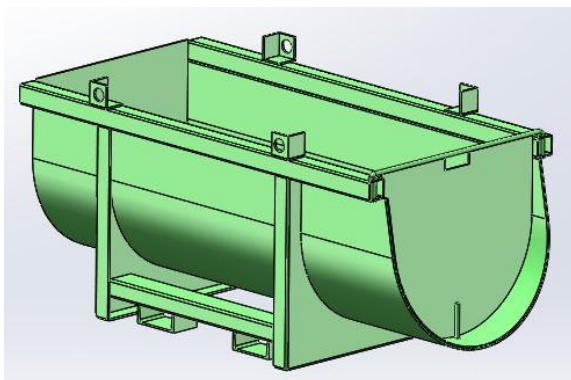
IBO - Charging bucket

*with simple kinematics
and the charging tube*



The charging bucket with simple kinematics is suitable for charging with a monorail crane.

After filling, on a frame, the bucket can be moved via a monorail crane at the furnace. When positioning at the furnace, the swiveling flap opens and closes below the top so that the gas can be extracted optimally. For storage, the bucket just needs to be shut down. In order to prevent the opening of the pivoting flap, it is fixed with a bolt.



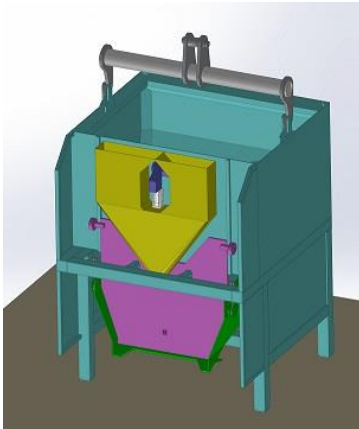
The charging tube provides charging in small quantities by hand and is the cheapest option.

Here, too, extraction occurs during charging.

After setting down the tub in front of the furnace, the front hooks must be released and then raised, and subsequently, the rear part as well. The speed and quantity are then regulated by the angle. The advantage of this variant, as with other charging buckets, is the sliding filling of the crucible. This causes less spatter and thus does not build up pressure in the crucible.

IBO - Charging bucket

With sprung floor



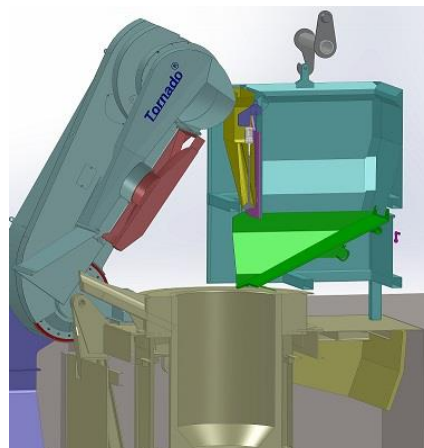
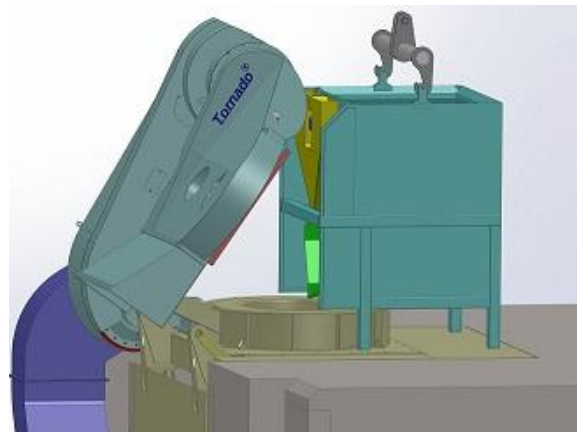
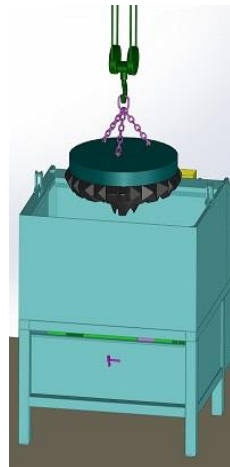
The charging bucket with sprung floor is suitable for large quantities and is filled using a magnet.

After positioning the charging bucket, the plate opens with the aid of a motor. Via the shakers mounted on the bottom, the material can slide into the crucible.

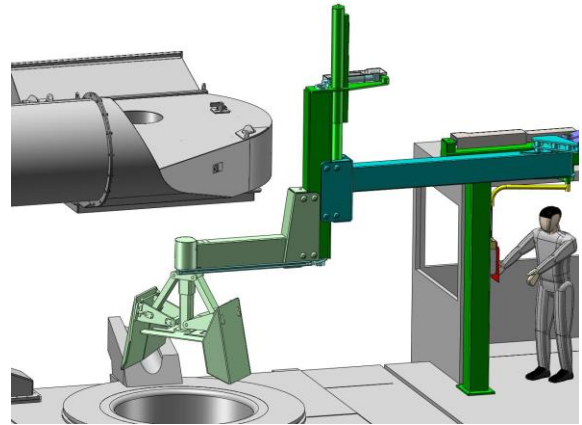
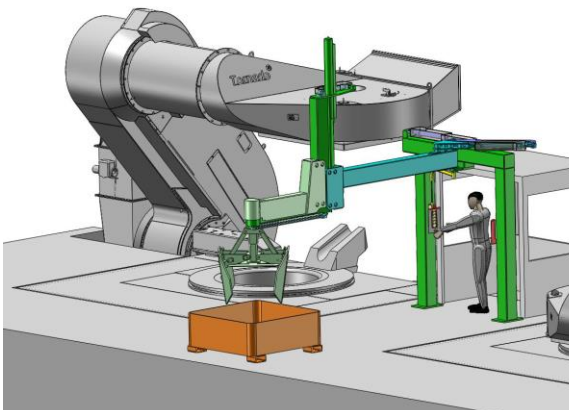
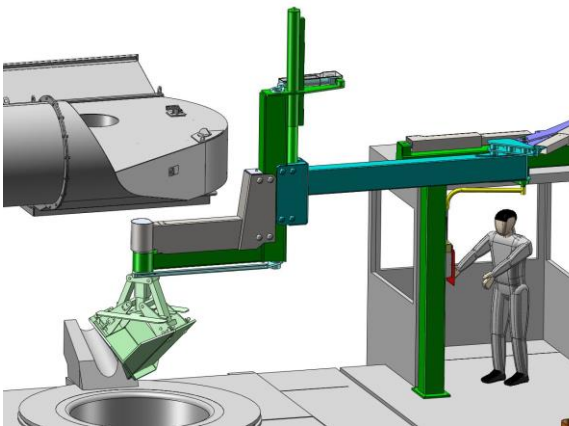
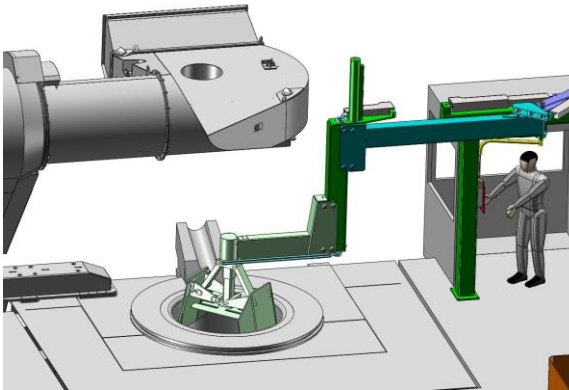
This charging bucket has a separate chamber that can be opened with a cylinder and so additives may be added as required.

All charging buckets offer the following benefits:

- **Correct and safe use**
- **Suitable for multiple furnaces**
- **The scrap slides into the furnace (causing less spatter and does not trap air inside the furnace)**
- **Optimum extraction during charging**



IBO - Slag grabber

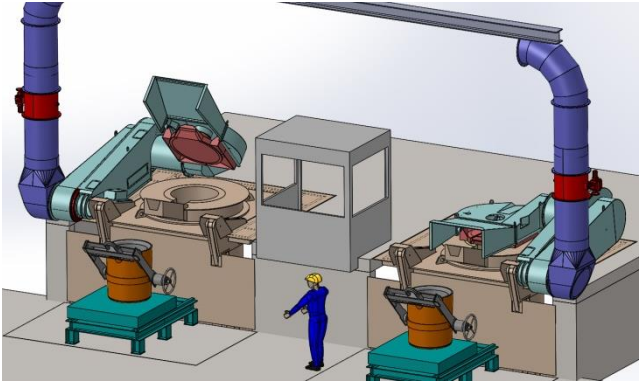


The slag grabber is especially designed for the use with the Tornado hood.

It is installed on a frame structure between the furnaces and can be used for deslagging of two furnaces of the same size and that are placed in the same distance to the control booth.

It is hydraulically operated. The slag grabber can be installed in the way that it can swivel to the front side of the furnaces or to the rear side. The swiveling movement and the vertical adjustment is done by the operator by a control panel which is installed in the control cabin. The Tornado hood can be positioned in a close distance to the slag grabber respectively the bath surface while deslagging, for an efficient extraction of the fumes while deslagging

- **Easy, comfortable and save control of the slag grabber in the control booth. The slag grabber must not be moved by hand**
- **Usable for two furnaces**
- **Hydraulically operated**
- **Independent from the indoor crane**

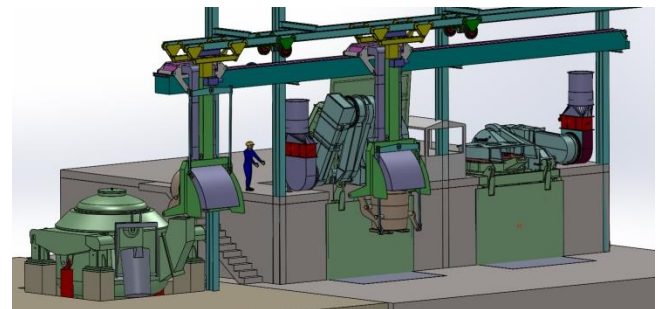


Solutions in the foundry

IBO - Ladle transfer solutions

IBO ladle transfer solutions are specially designed for use with Tornado hoods. They enable the efficient detection of the flue gases during pouring and prevent cooling during ladle transfer.

Multiple furnaces can use the ladle transfer solutions.



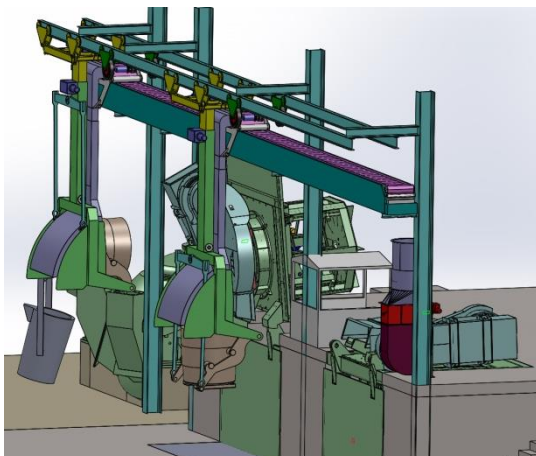
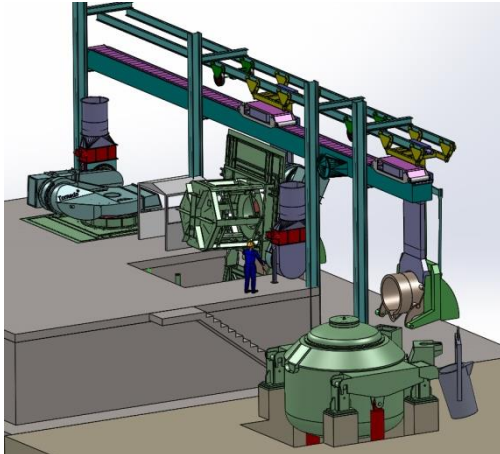
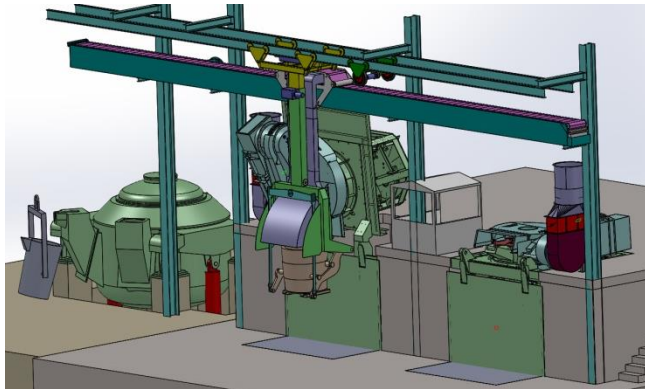
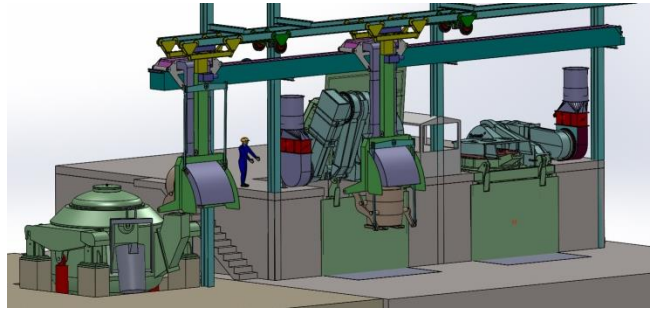
***Interested in additional ladle
transfer solutions?***

***Visit our homepage and send us
a request with your needs!***

***We are happy to work in close
cooperation on an ideal solution
for you!***

Solutions in the foundry

IBO - Crane extraction



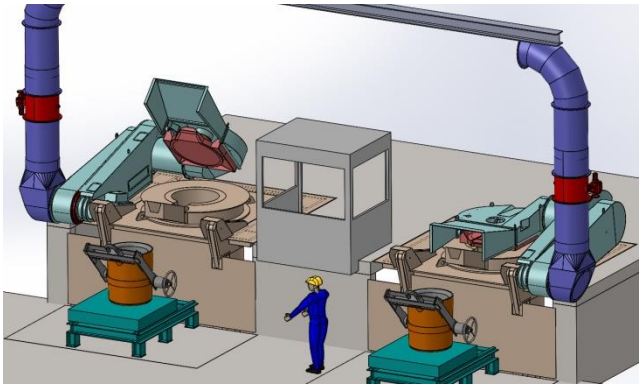
IBO crane extraction has been specially developed for use with the Tornado hood. It enables the efficient capture of fumes during pouring, extracted directly at the ladle.

The crane extraction is mounted on a frame in front of the furnaces and can move between linearly arranged furnaces.

The ladle can be moved from the parked position to the respective discharge position and the holding furnace via a dedicated control. The operator remains at a safe distance from the furnace or ladle.

- **Correct and safe use**
- **Suitable for several linearly arranged furnaces**

IBO - Ladle transfer table



The IBO ladle transfer table has been specially developed for use with the Tornado hood. It enables the efficient capture of fumes during pouring, since the ladle is moved directly to the furnace.

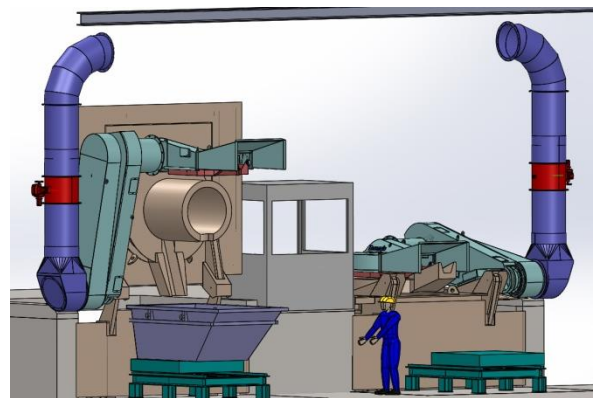
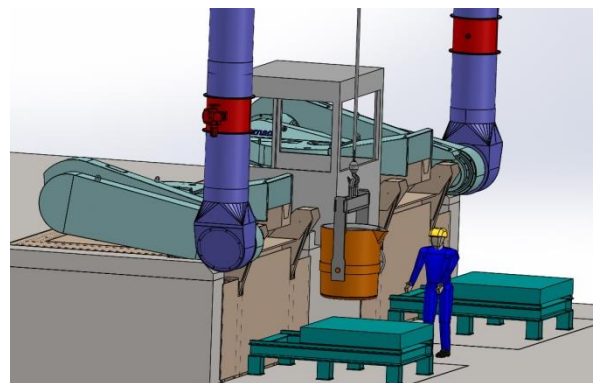
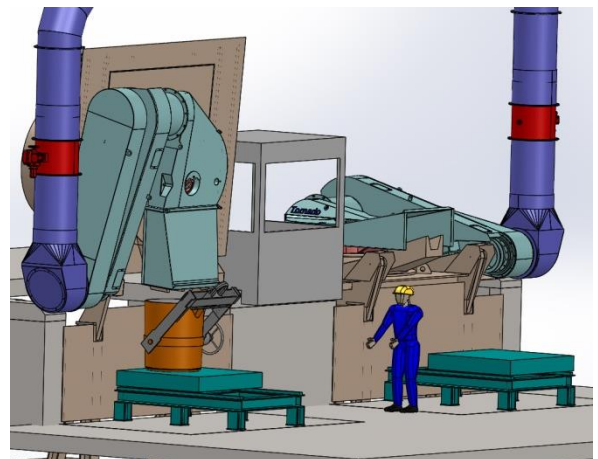
The table consists of a fixed frame and a linearly movable tabletop.

After setting down the ladle on the tabletop, the crane rope gives way, so that the ladle is moved from the table to the furnace. After filling, the table returns and the crane cable is tensioned and transports the pan along.

Table movement occurs via an operating element. The operator remains at a safe distance from the furnace or ladle.

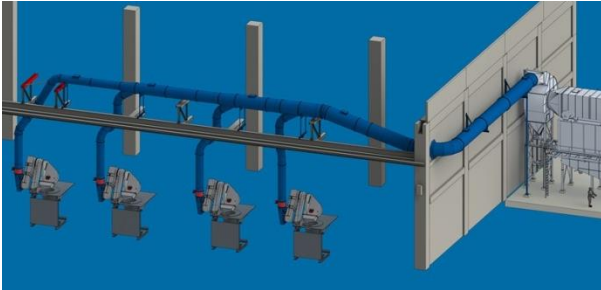
To expel the crucible, a container can be placed on the table trough so that the pot can be easily removed.

- **Correct and safe use**
- **Suitable for several linearly arranged furnaces**
- **Also available as a cart**
- **Height adjustable**



Air technical equipment

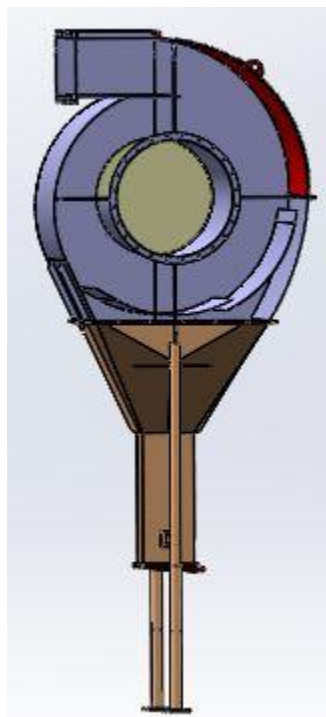
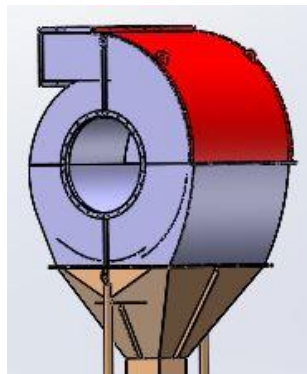
Piping



The piping has optimized airflow for less turbulence and pressure loss. They are designed and constructed in accordance with the required air quantity and adapted to the particular structure of the building. The pipes are made of welded 3 mm plates and painted both on the outside and the inside.

Air technical equipment

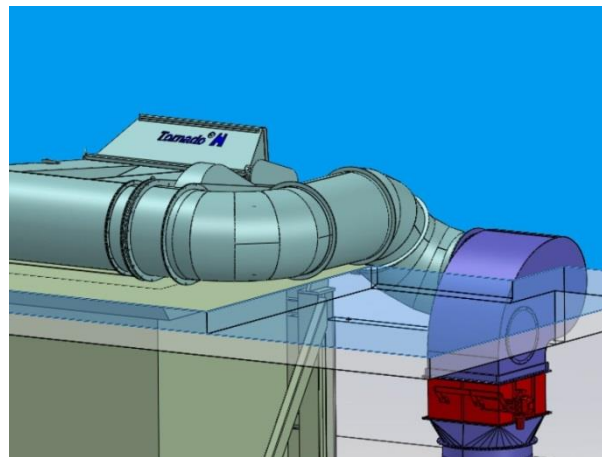
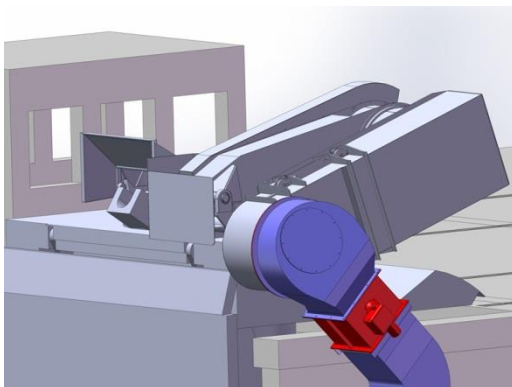
Skimmer



The skimmer is used to separate coarse particles and sparks from the air stream. For this purpose, it is installed in front of the filter in the raw gas pipe. The raw gas enters the skimmer and is directed in a horizontal rotational movement. The heavier particles are carried by gravity to the outside and collide against the outer wall. From there, they slide down, where air baffles cut off the air layer that is carrying heavier particles and passes them into the settling area. There, the particles separate and are collected in a container or big bag. The air that has been offset in rotation exits the skimmer via a center-mounted tube. The red cover can be removed for maintenance purposes and replaced if necessary.

Air technical equipment

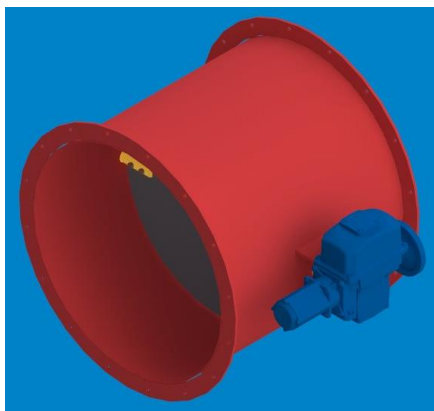
Connection box



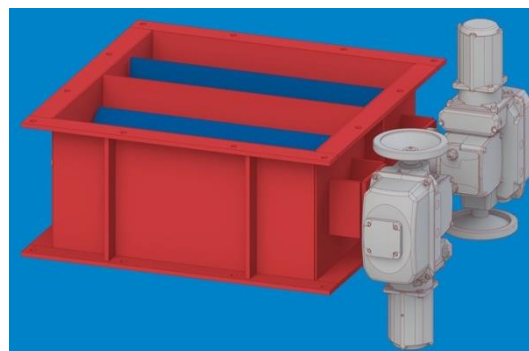
The optimized fluidic connection box connects the hood with the exhaust duct. Various designs are available. The junction box is often connected to a throttle valve, then a transition piece, from rectangular to round, and then the round raw gas pipe.

Air technical equipment

Dumper valve



- Dumper valve for 1 furnace, round -



- Double dumper valve for 2 furnaces, angular -

The dumper valve regulates the airflow in the raw gas line. It can be operated electrically or manually and is available in different sizes, available with one or more valves, in round or right angular shape or e.g., in a special flat design when space is limited. The drives are equipped with a potentiometer to signal the position of the flap.

Exhaust technological planning for foundries / Turn-key-projects

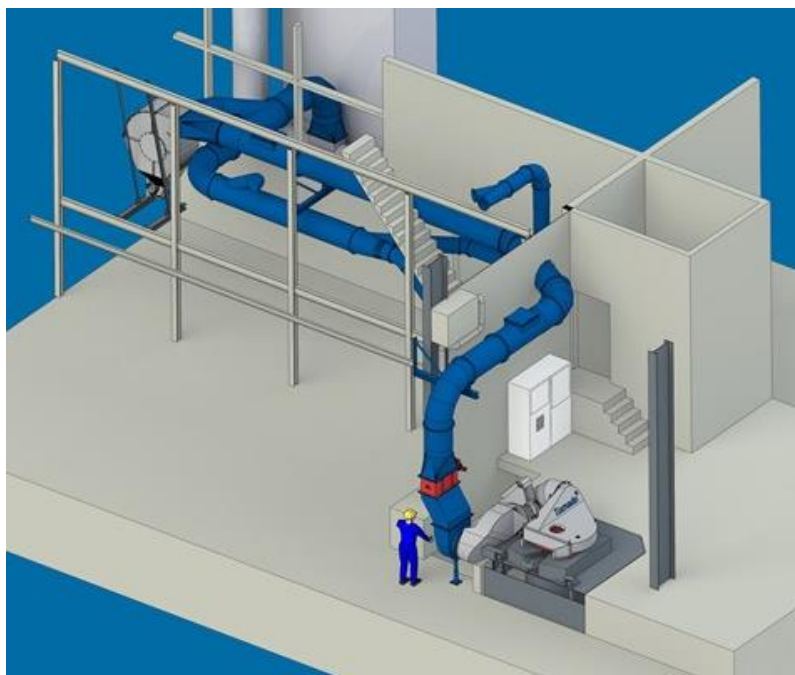
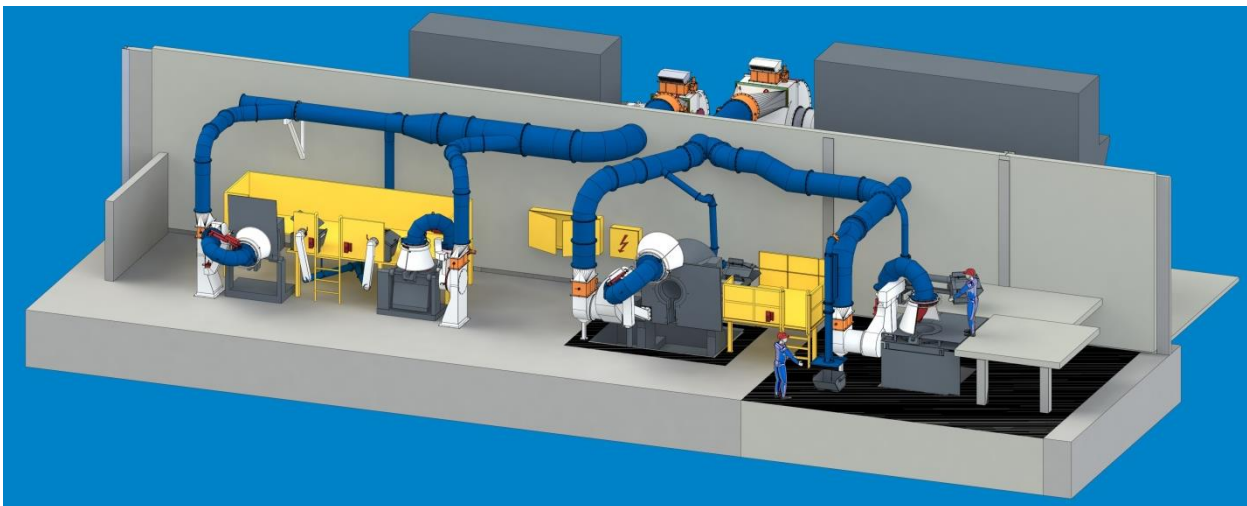
***From planning to start-up
from one source***

commissioning is carried out by our experienced staff, which also conducts training, maintenance and repair work.

We develop extraction concepts for all foundries or portions thereof in close cooperation with the customer. Design and development is carried out by our experienced engineers and in a modern CAD environment. We offer individual, technically optimized and economical solutions. For implementation, we provide a variety of ventilation components such as hoods, pipes, butterfly valves, skimmers, etc., which are designed and constructed according to the individual requirements of the customer. Installation and

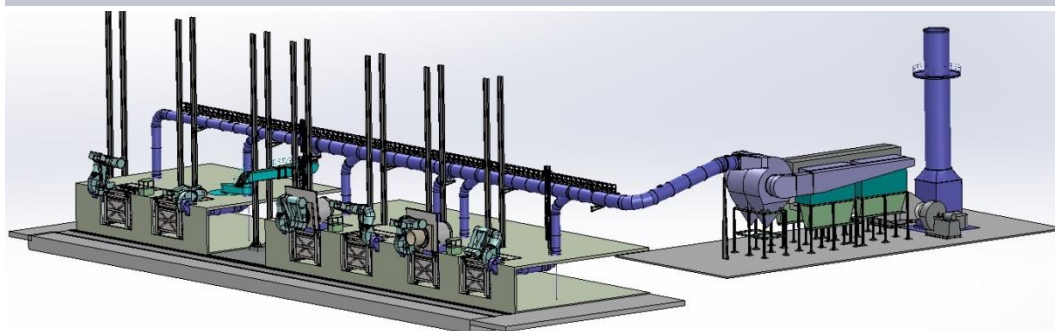
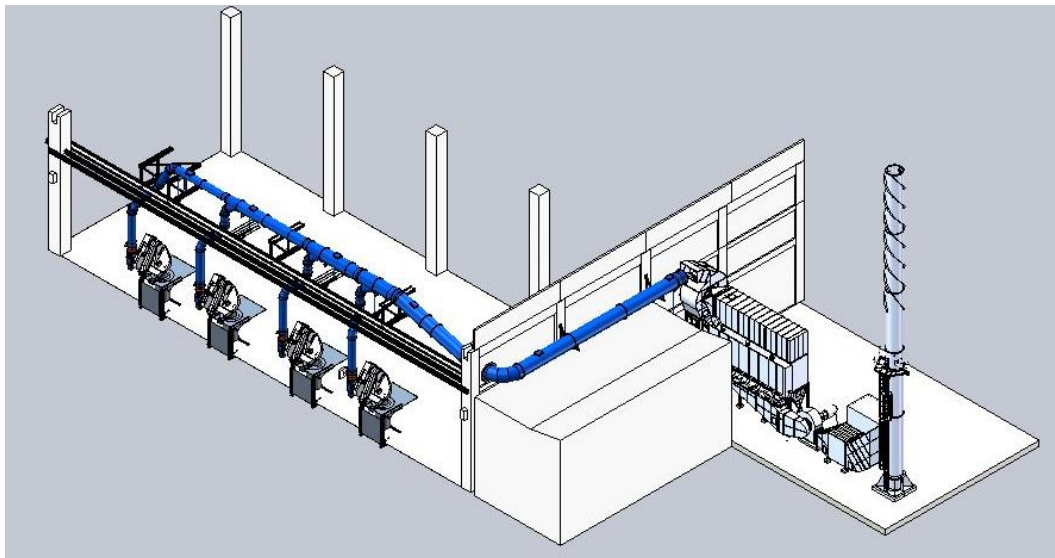
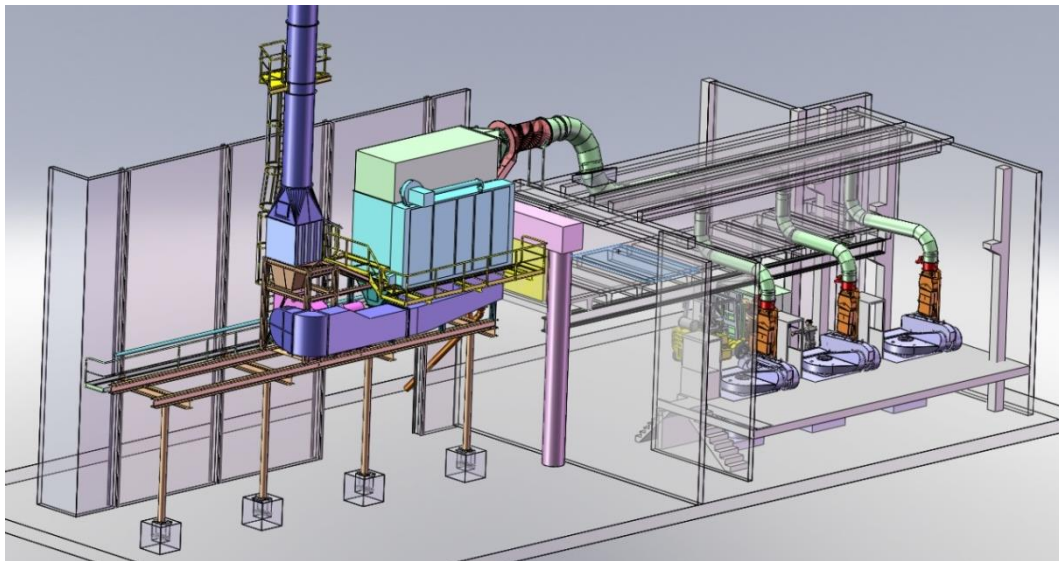
Additional comprehensive solutions are available upon request!

You are welcome to visit us on our homepage!



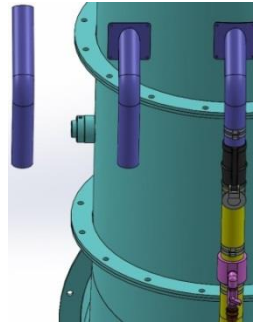
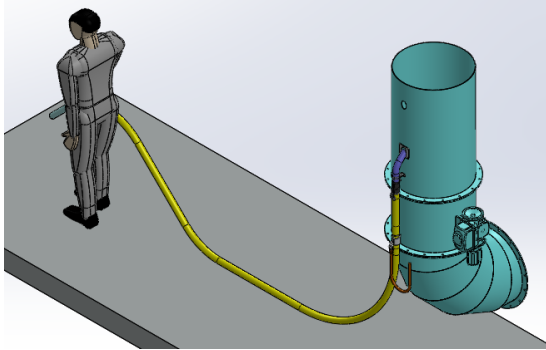
Exhaust technological planning for foundries / Turn-key-projects

*From planning to start-up
from one source*



Special products

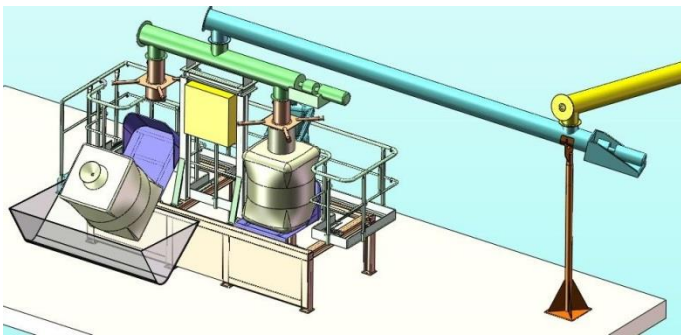
IBO - Vacuum cleaner



With IBO vacuum cleaner, operated with the compressed air, dust, fine and coarse-grained materials can be sucked away. The dust does not, as is conventionally done, enter a separate container that must eventually be emptied, but rather immediately enters the pipeline of a dedusting system and is filtered there. Even inaccessible places can be effectively cleaned with the flexibility of a vacuum cleaner.

Special products

IBO - Big Bag Filling station

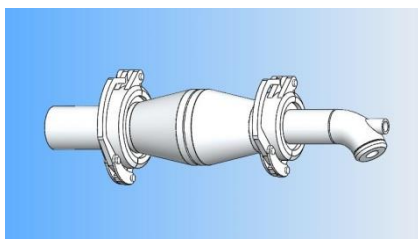


The big bag filling station provides for the clean and easy removal of dust and fine-grained material. The big bags are filled successively in order to avoid any work stoppages due to changing.

For example, a typical application location for one of these dispensaries might be a grinding facility in which dust is collected in silos. The dust can be then be packed in big bags and recycled in a foundry.

Special Products

Bubble tube



The Schaumlanze 'bubble tube' is used to generate large amounts of foam. Through various infusions and using different surfactants, the properties of the foam may be varied.

Wells



Wells are used in the hydraulically pivotable tipping device. Emptying is performed safely and at the desired rate and amount.

Do you have an idea or have been looking for a solution?

Do you have ideas for improvement?

We are very interested in unresolved issues!

Visit our website and give us your ideas, wishes and suggestions!

We are more than happy to develop a custom tailored solution in close cooperation with you!

Engineering services

***We are your competent partner for
development and construction
projects!***

Our dedicated team designs flexible and precise solutions that are tailored to your individual requirements for your satisfaction, recommendation and for mutual success.

Services:

- Design and development through consultation, planning and analysis as well as feasibility studies in close cooperation with the customer
- Design and drafting services in all stages of development
- Production and documentation
- 3D graphics and animations

Our customers are active in a wide-variety of industries, such as foundry, filtering technology, tunneling, laboratory equipment, mechanical engineering, automotive, the food industry and many more.



CAD:

Our modern CAD workstations are constantly updated and maintained with the most up-to-date hardware and software. For several years, we have been using the 3D software SolidWorks Professional and SolidWorks Premium along with database systems for drawing management and BOM generation. When it comes to manufacturing documents, we can provide 2D drawings in DXF and DWG file formats. For volume models, output is possible in STEP, IGES and other formats. On paper, we can deliver plotted manufacturing drawings up to DIN A0 in black and white, or in color.

Visit our website and let us know what we can do for you today!

We are happy to work in close cooperation on a personally tailored solution!

IBO filter systems provide optimal cleaning of exhaust air, either at a particular location or in outdoor applications.

The stationary filter systems are not only used for flue gas extraction from furnaces, but also across all industrial sectors in which exhaust air treatment is required.

The mobile filters have been specially developed for fast and easy transport. After a very short assembly time, they are ready to use.

The compact filter is optimally equipped for the high demands of daily use in its container dimensions, equipped with an innovative flushing technology.

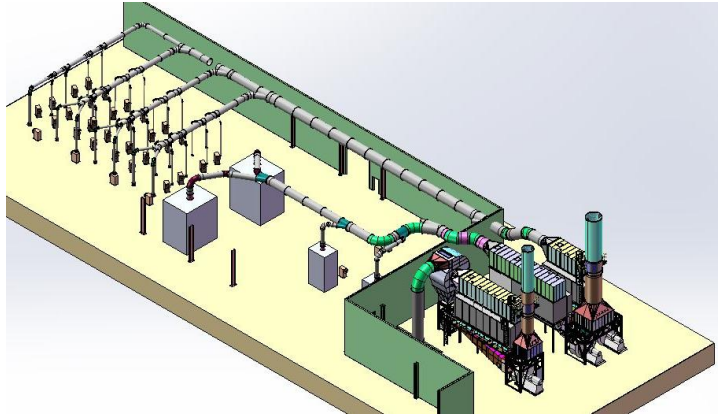
The efficient treatment of exhaust air, the longevity of the system, its ease of use, combined with the unique dual flush is of the highest quality.

IBO filter systems are suitable for new installations. Due to their adaptive designs, they are also ideal for retrofitting. This ensures that the best solution can always be provided in accordance with individual customer requirements.

Discover the variety of possibilities!



Stationary Filter

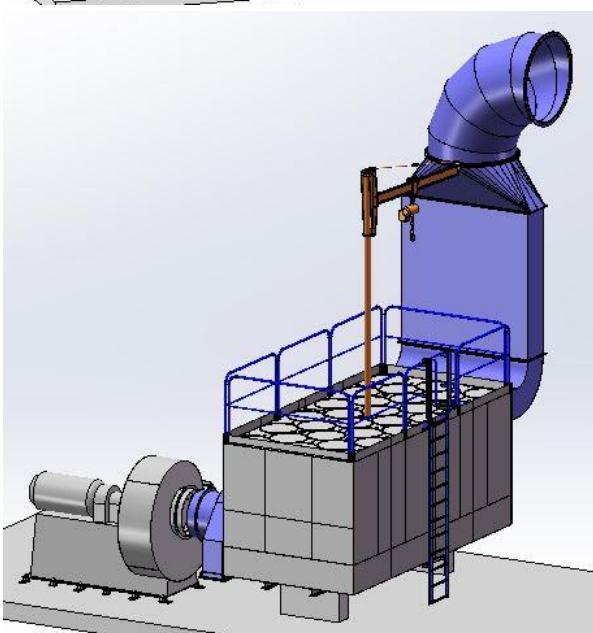
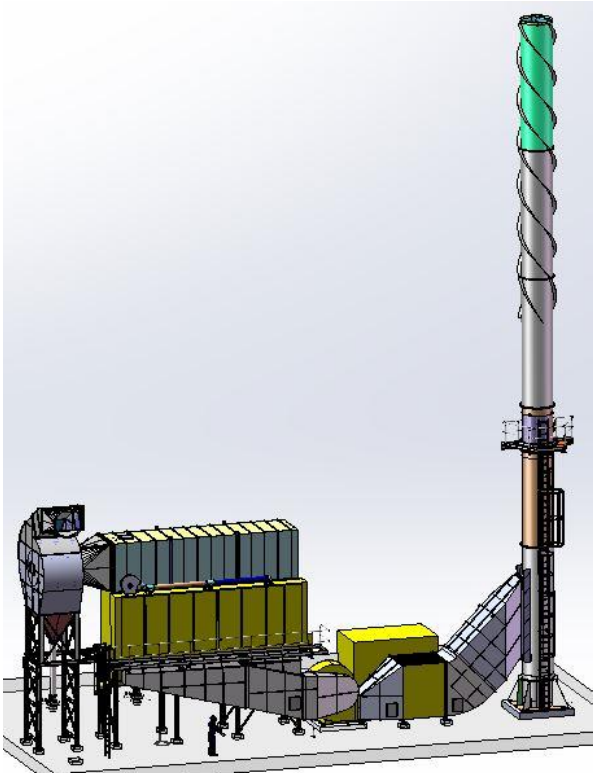


The SF can be used everywhere where treatment of exhaust air is required. Be it in a foundry, cleaning or at any other facility.

After the initial system installation, the SFA is ready to be put in operation. An inspection should be conducted periodically. This will then be conducted by trained personnel or by us.

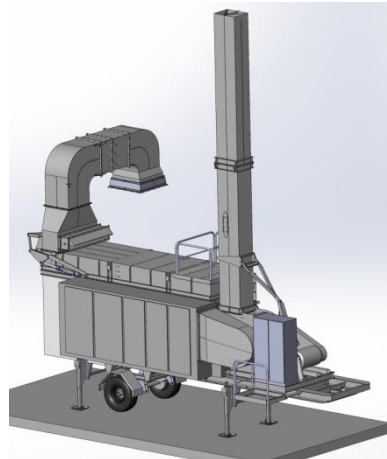
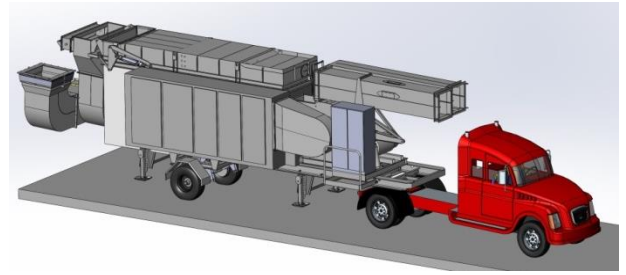
Our modular design allows for the individual implementation of customer requests.

- **Individual implementation**
- **Individual location installation**
- **Also carbon filters**



Filter Systems

Mobile Filter

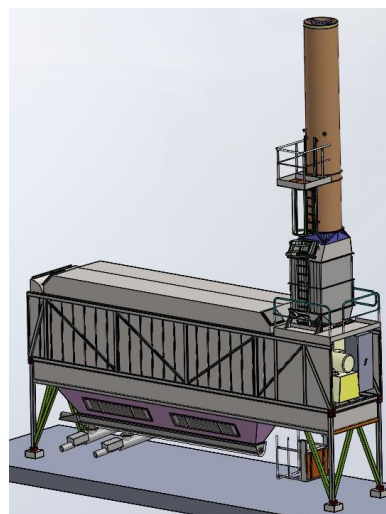
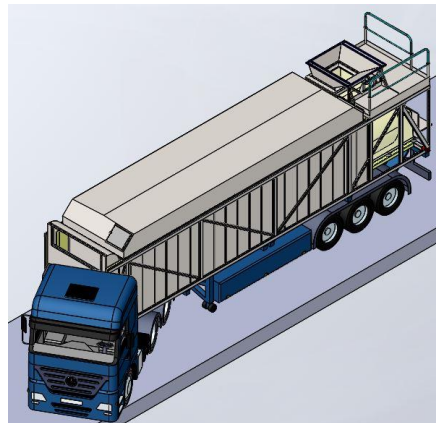


The MF is a mobile filter that can be used wherever it is needed. Due to its size and shape, it can easily be transported by truck. The MFA should only be opened and connected on site. It is then immediately ready for installation and operation.

- **Mobile**
- **Ready to Use**
- **No major construction effort required**

Filter Systems

Compact- Filter Orchis



The CFO is a compact filter with container dimensions. It can easily be transported on a truck and set up quickly and easily on site. After set up and a test run, it is ready to go.

- **Container dimensions (40')**
- **Cheap transportation option**
- **Short installation times**