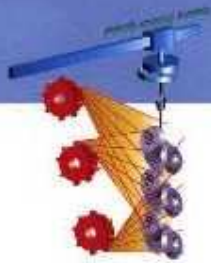


Overhead Monorail Blast Cleaning Machines HT



DISA



Overhead Monorail Blast Cleaning Machines HT

Accomplishing blast cleaning tasks and solving transport problems at the same time and in compliance with the system

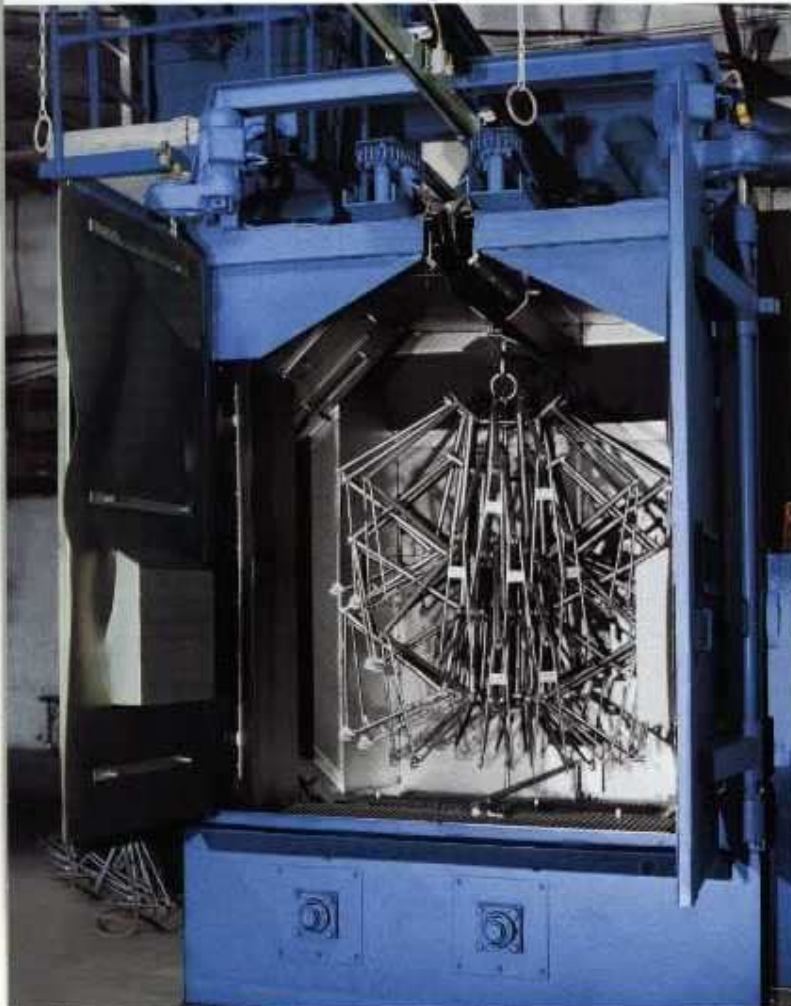
Overhead monorail blast cleaning systems of DISA are renowned for a variety of applications in different production areas. They offer ideal conditions for effective and economical blast cleaning. The use of hangers allows for reliable and economical blast cleaning of components, from small to large castings and truck frames.

Range of applications almost without any limits

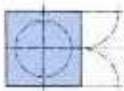
- Desanding and final blast cleaning of castings – especially parts susceptible to breakage and impact damage
- Descaling of forgings or hardened steel parts
- Derusting, roughening, finishing, sweeping
- Shot peening
- Deburring of plastic parts

Besides versatile application, DISA overhead monorail blast cleaning systems offer a great number of further advantages:

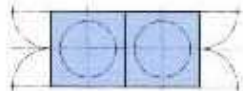
- Compact design and ease of operation
- High blast cleaning performance
- Economical abrasive consumption, reliable cleaning and dust collection
- A wide range of machine types for different production rates and workpieces of different sizes
- Easy integration into existing production lines with a variety of options for step-by-step extension and mechanisation (modular design)
- Long life due to highly wear-resistant material
- High operational safety, low maintenance and maintenance-friendly design (external bearings, easily replaceable wear parts)
- High sand separation capacity with combined magnetic and air-wash separation



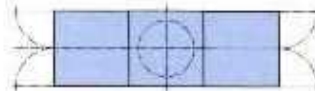
Design Variants



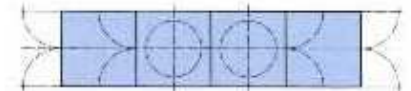
Basic design with reversing conveyor system



Extension for increased output



Extension for maximum output and special blast cleaning programmes



Extension with additional cabins for large workpieces

Machines proved in practical application

The basic series comprises machine housings of different sizes, equipped with 2, 3, 4 or more blast wheels. Depending on the dimensions of the parts to be cleaned and the output required, it is possible to connect several machine modules in series.

The concept covers machines for reversible or throughfeed operation. Normally, machine installation is possible without any foundations. For processing large parts inlet and outlet sluices can be provided.

Important machine components:

- Sturdy welded housing structure reinforced with profiles
- Heavy-duty turbines
- Abrasive circuit
- Abrasive cleaning
- Overhead monorail system

Surfaces directly exposed to the blasting stream and subject to increased wear are protected by replaceable manganese steel liners or, if required, by hardened tool steel liners. The unique blast wheel arrangement ensures that all faces of components even with undercut walls and surfaces, can be cleaned in one passage.

Overhead monorail blast cleaning system in combination with a robot for cleaning the inside of the parts

019029



Overhead monorail blast cleaning system with manual monorail

013174



Suitable hangers allow for processing a variable selection

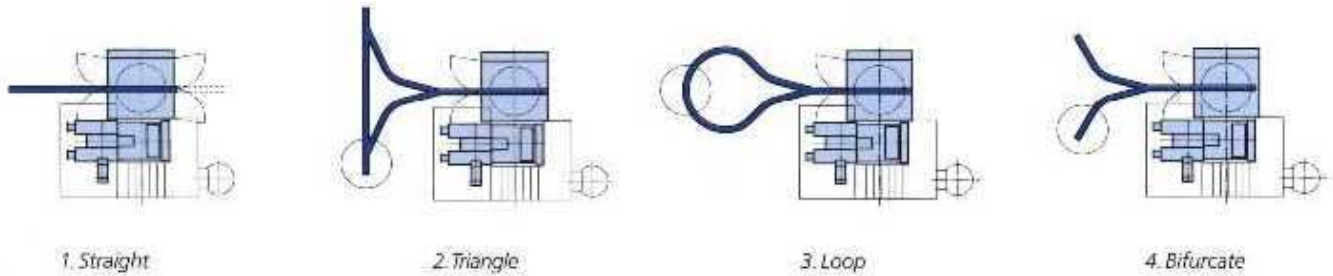
010823



Machine with monorail system for blast cleaning transformers

013178

Overhead Monorail Systems



Many ways for adequate and innovative solutions

Overhead monorail systems as transport equipment offer a variety of possibilities for an optimum material flow and moreover contribute to a considerable reduction of finishing costs. Overhead monorail systems allow for accomplishing blast cleaning tasks while at the same time solving handling problems in compliance within an overall system. Rails, switch points and crossings permit the material flow to any further operation. Routing changes or extensions can be implemented without great expenditure. The transport hanger is loaded outside the machine by hand, forklift truck, crane, lifting

gear or robot and then moves into the shot blast cabin where all faces of the workpieces are treated in one passage.

Reversible or throughfeed operation

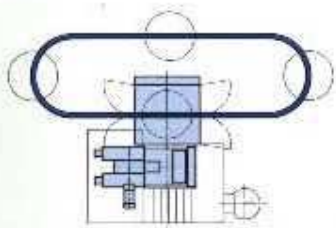
Within the blasting zone the hanger is rotated and oscillated using a drive unit. Reversing operation (clockwise and counter-clockwise rotation) is available as an additional mode. This mode of operation, allows the shot blasting at different angles to the workpiece thus avoiding blast shadows.

Loop principle

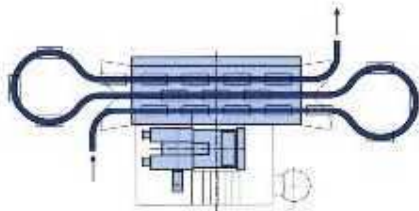
For parts susceptible to impact damage, by using loops several passes can be made through the shot blast machine, exposing a different workpiece surface on each pass.

*Blast cleaning system
and handling equipment
for blast cleaning sheet
metal plates*
610077





5. Oval for in-line operation



6. Monorail loop for in-line operation

Blast cleaning system for shot peening of stabilizers for passenger cars
C 9964



Shot blast cabin of an HT 2-13/21
C 10484



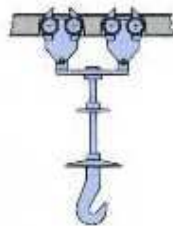
Customized monorail system with switch points turntable
C 10479

Blast cleaning of aluminium parts on a Power and Free system
C10530

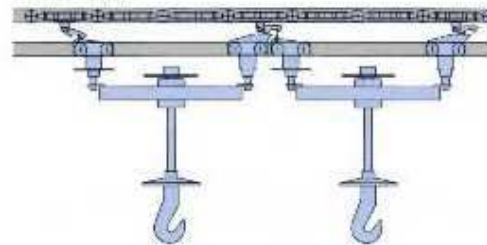


Standard Hanger Systems

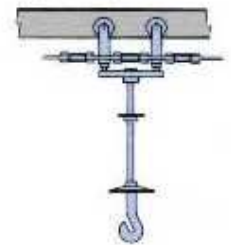
Single hanger,
manual movement



Power and
Free conveyor



Chain
attachment



The shape and design of the hangers depends on the parts to be cleaned and the task to be performed. The range of possible solutions cover:

Manually actuated hangers

For small series and unit weights of up to 2,000 kg, manually actuated hangers can be used. Electric driven systems with lifting gear, loads up to 20,000 kg (30,000 kg, special design) can be designed upon request.

Hangers driven by chain conveyors

Chain conveyors offer a variety of extension possibilities and are suitable for companies processing small to medium-size parts.

- Power and Free systems; with individual rail layouts. Loads of up to 10,000 kg per hanger.
- Circular conveyor systems with connector chains for intermittent or throughfeed operation, for loads up to 10,000 kg.

Motor-driven automatic hangers

Motor-driven automatic hangers are suitable for small, medium and large-size parts.

- Electric overhead monorails with automatic drive mechanisms for loads up to 10,000 kg. Preprogrammable drive mechanisms roll on



HT 2-13/15 at manufacturer's works

RC 1041

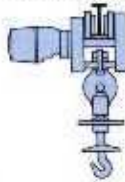
a carrying rail with power supply and have their individual drive units. Loading and unloading areas can be perfectly adapted to local conditions. To control the direction the hangers travel in a system of switch points, sluices, lifting and lowering elements are integrated into the overall monorail system.

- Monorail crane systems with lifting gear, for loads up to 50,000 kg.
- Crane systems with lifting gear, for practically unlimited loads.

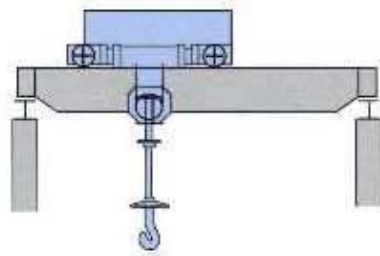
Electric drive mechanism



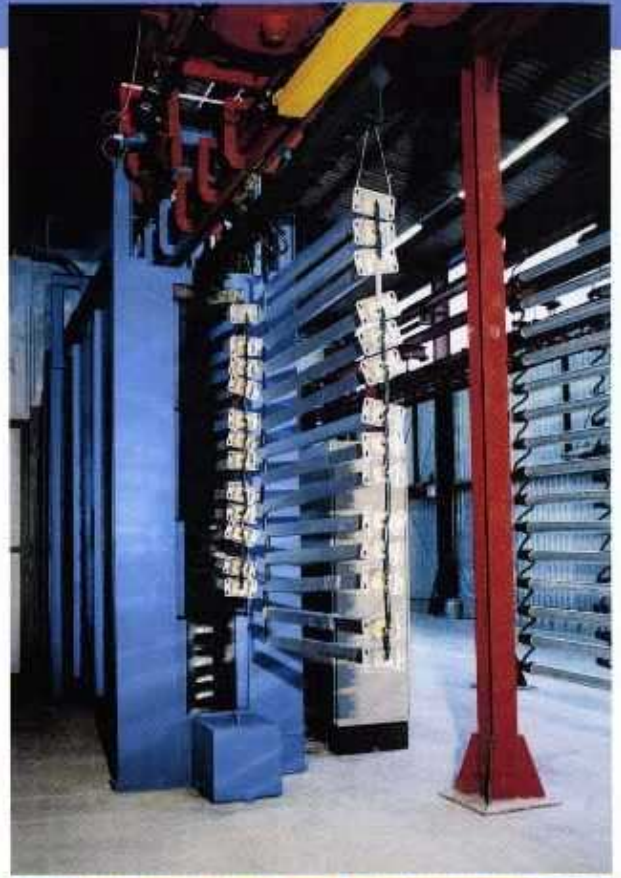
Electric lift and drive mechanism



Crane drive mechanism with lifting gear



System for blast cleaning grid fences and gate components on a Power and Free system
013167



Blast cleaning system for engine castings
013164



Electric automotive drive mechanism for max. 500 kg
013165



Blast cleaning of brake drums and brake disks
013166



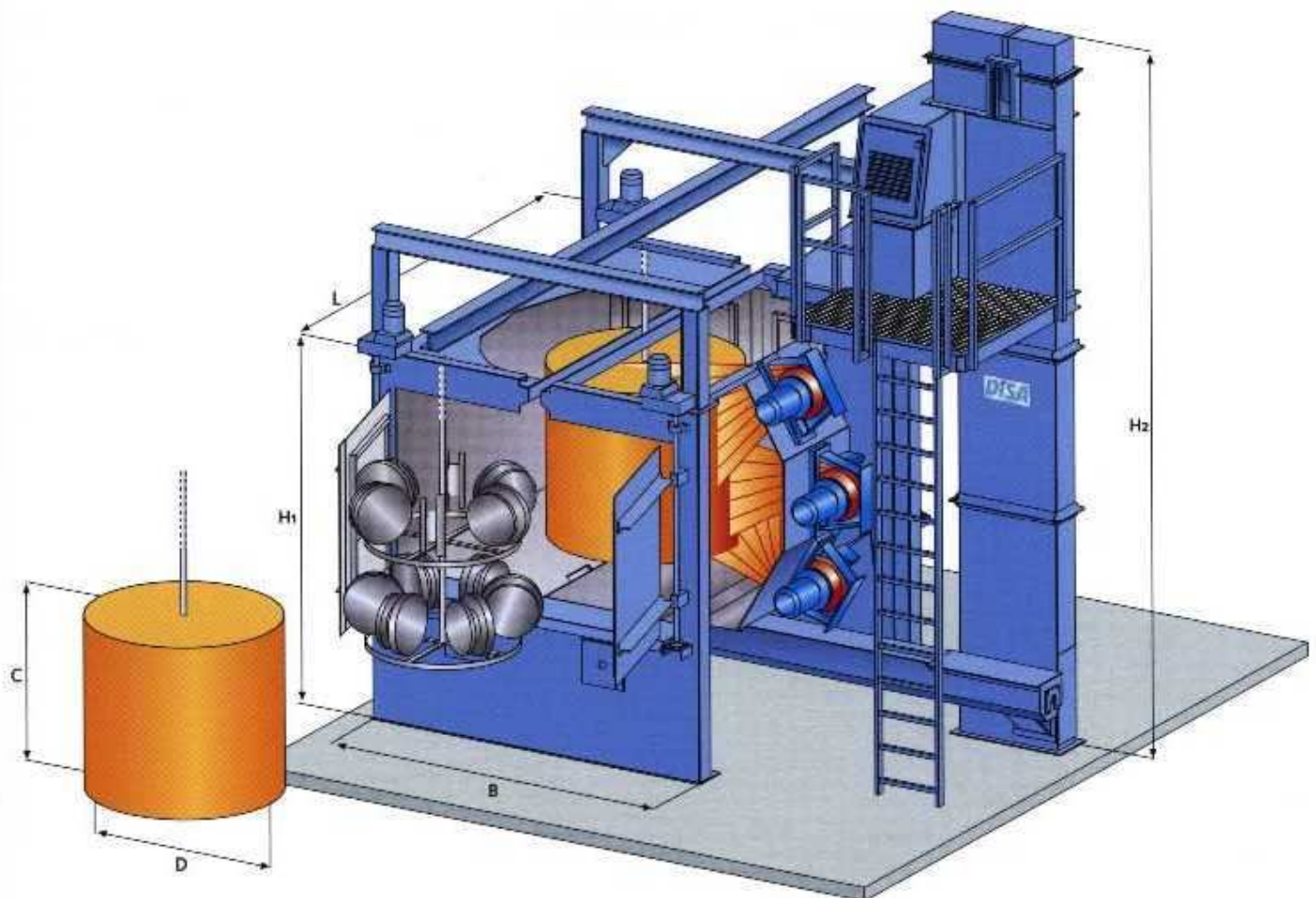
Shot blast chamber for large castings

013169

Technical Data

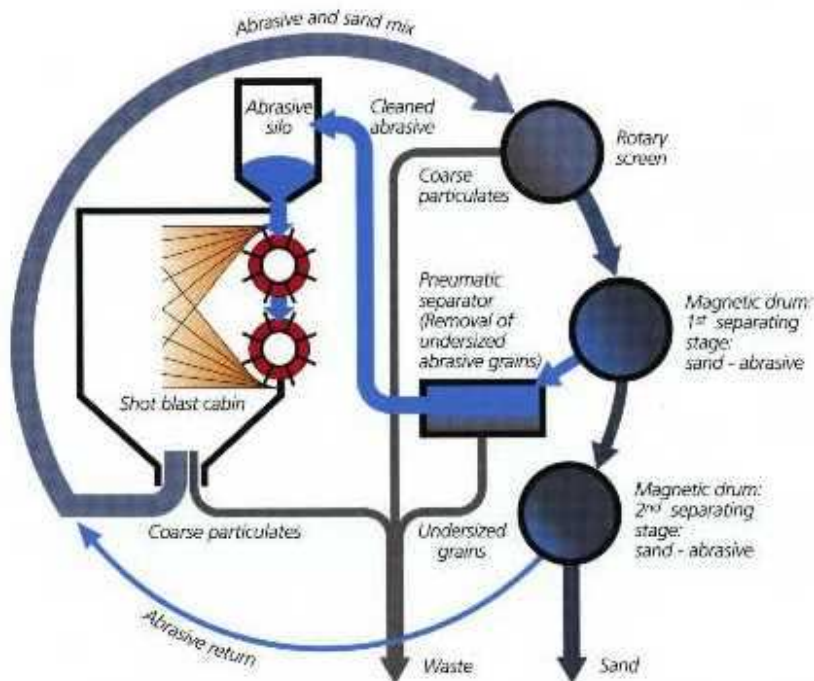
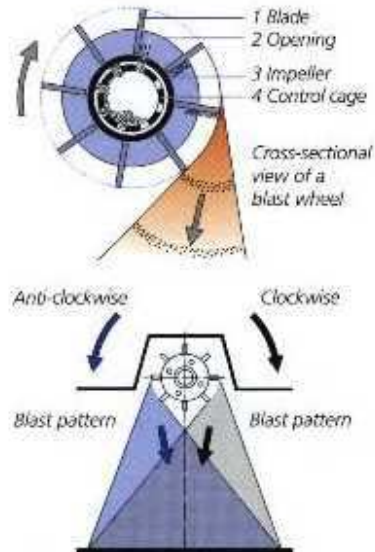
HT	1.2x16x2.4	1.4x18x2.5	1.6x2.0x2.5	2.0x2.4x2.5	2.2x2.7x3.0
Envelope circle Ø D [mm]	850	1000	1200	1600	1800
Blasting height C [mm]	1200	1200	1600	1600	2200
Number of blast wheels	2	2	2-3	2-3	3-4
Power [kW]	5.5-11	5.5-11	11-22	11-30	11-37
Dimensions approx. [mm]:					
Length L	1600	1800	2000	2400	2700
Width B	1200	1400	1600	2000	2200
Height H ₁	2400	2500	2500	2500	3000
Height H ₂	4125	4200	4900	5150	5450

Other sizes upon request



Efficiency and Precision DISA Blast Wheels

DISA blast wheels are renowned for high capacity and maximum energy efficiency. These blast wheels come in various power ratings, giving a high degree of flexibility. Due to the reversibility of the blast wheel rotation, the range of applications can be considerably extended. The amount of abrasive can be adjusted from the operator's panel. The abrasive is mechanically pre-accelerated and delivered to the blast wheel in a continuous stream. This ensures optimal utilisation of the power from the drive motors. High wear resistant material ensures maximum service life of the blast wheel. Unique design features allow for rapid and simple replacement of wear parts.



Efficient cleaning of abrasive for perfectly clean castings

Abrasive contaminated by moulding sand, core sand or scale will considerably reduce the cleaning capacity of any shot blast machine. It will, moreover, increase wear and cause deposit built-up on the workpieces. Separators adapted to the application and to the amount of sand involved (pneumatic, magnetic or combined operation) can reliably and effectively solve this problem.



Pictures of workpieces by courtesy of Metzkaisterri Giesen B.V.



DISA Group

Founded in 1900, DISA is the world's leading supplier of foundry equipment, metal surface finishing systems, and air pollution control solutions. DISA is constantly setting new standards in the industry through an outstanding commitment to research and development.

With 2,500 employees, DISA is represented worldwide with production facilities and sales and service offices in three continents, and an extensive agent network.

A. P. Moller Group

DISA is part of the worldwide A. P. Moller Group which has offices in 325 cities in more than 100 different countries, and employs some 50,000 people.

The business interests of the A. P. Moller Group include oil and gas exploration and production, shipbuilding, aviation, industrial engineering and IT services.

For illustrative purposes the DISA equipment may be shown without any warning labels and with some of the protective guards removed. The warning labels and guards must always be in place when the equipment is in use.

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult Conditions of Supply stipulated in the relevant quotations.

DISA

www.disagroup.com

DISA Industrieanlagen GmbH

Schwerter Str. 200
D-58099 Hagen-Kabel
Germany

Tel +49 2331 965 3
Fax +49 2331 965 521
info.hagen@disagroup.de

DISA Industrie AG

P.O.B. 1070
CH-8207 Schaffhausen
Switzerland

Tel +41 52 631 1717
Fax +41 52 631 4888
info.sh@disagroup.ch

DISA Industrieanlagen GmbH

Pfinztalstr. 90
D-76225 Karlsruhe
Germany

Tel +49 721 4002 0
Fax +49 721 4002 260
info.karlsruhe@disagroup.de

DISA Industries s.r.o.

Za Balonkou 269
CZ-261 01 Píbram 1-269
Czech Republic

Tel +420 306 479 111
Fax +420 306 479 333
info.pibram@disagroup.cz