All from the one source!

Piping

- ❒ according to DIN 19530
- ❒ with sliding socket connections
- ❒ hot-dip galvanized inside and out
- ❒ available in steel or in V2A
- ❒ additional inner reaction resin based coating
- ❒ fire-resistant according to DIN 4102 in building material class A1.

Suction point with floor inlet

Central vacuum systems

Ruwac Industriesauger GmbH

Westhoyeler Str. 25
49328 Melle-Riemsloh

Telefon: 0 52 26 - 98 30-0
Telefax: 0 52 26 - 98 30-44

web: www.ruwac.de
e-mail: ruwac@ruwac.de

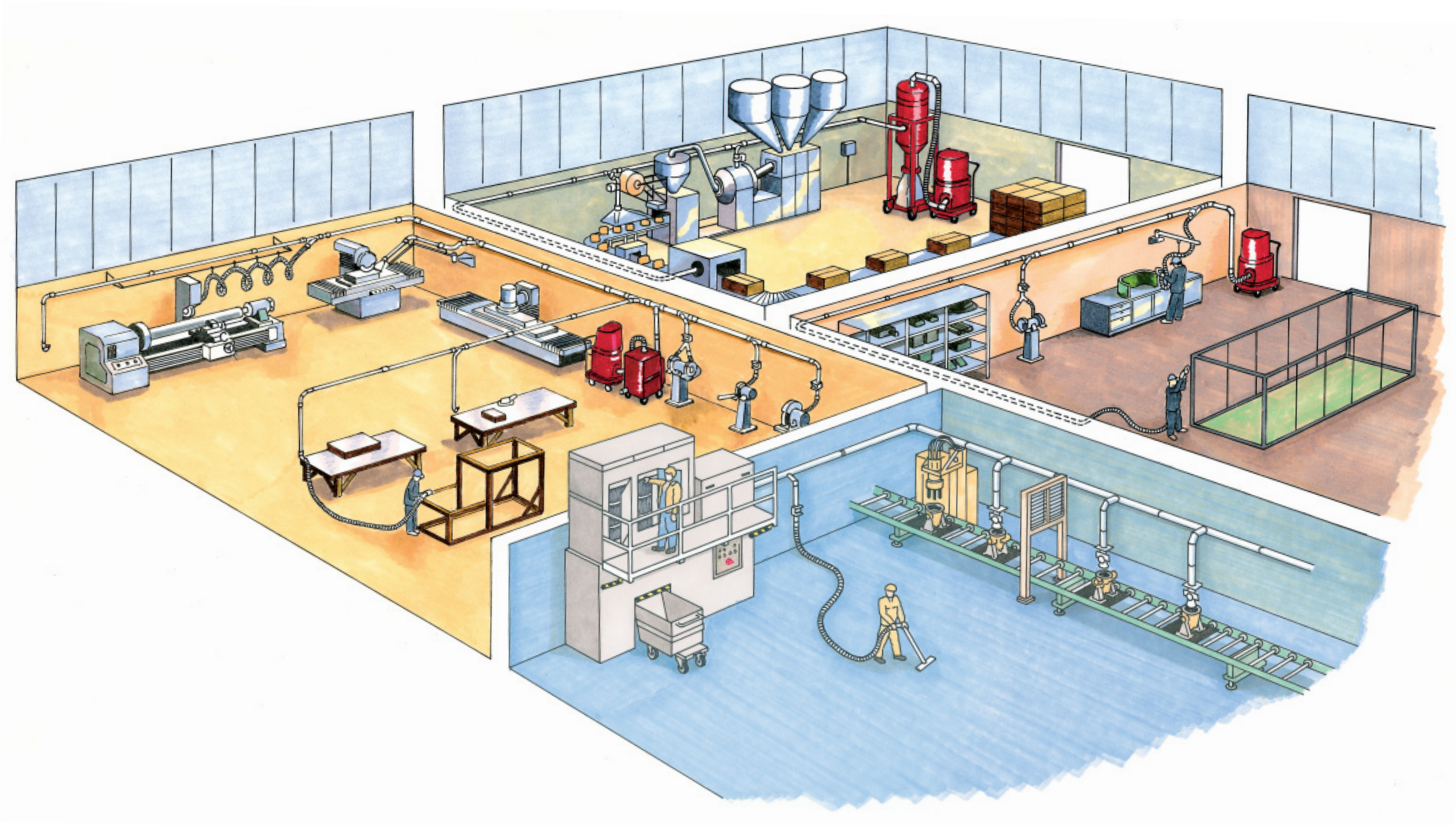
CE

14-131-002-02.2004

Ruwac Industriesauger GmbH

Ruwac vacuum systems - the most economical solution in many ways

Ruwac vacuum systems are custom designed. Precision planning is based on special conditions, the quantity and properties of the material to be vacuumed, the number of suction points and, of course, safety standards (e.g. wet separation, dust and gas explosion-proof models pursuant to directive 94/9 EC).
The calculation process and construction of both the vacuum unit (suction unit or industrial vacuum) and the whole piping system takes place at Ruwac.
The entire assembly is carried out by competent staff. Your responsible sales advisors and the relevant customer service technicians are also available to help you at any time.



The right solution for every requirement!

Mobile System

... for extracting and vacuuming heavy materials

- ❒ Motor power: 2 x 7,5 kW
- ❒ Air flow: 1.050 m^3/h
- ❒ Vacuum: 340 mbar
- ❒ Filter surface area: 11 m^2
- ❒ Disposal in 200 litre barrels

Vacuum + Silo* (mobile)

System for extracting and vacuuming dust at one or more suction points simultaneously

- ❒ Motor power: 7,5 kW
- ❒ Air flow: 700 m^3/h
- ❒ Vacuum: 210 mbar
- ❒ Filter surface area: 4,5 m^2 (vacuum)
- ❒ Filter surface area: 4,5 m^2 (separator)
- ❒ Disposal in customer's own containers

*(Glass-fibre reinforced plastic)

Stationary vacuum system

...for extracting and vacuuming dust at SEVERAL suction points simultaneously

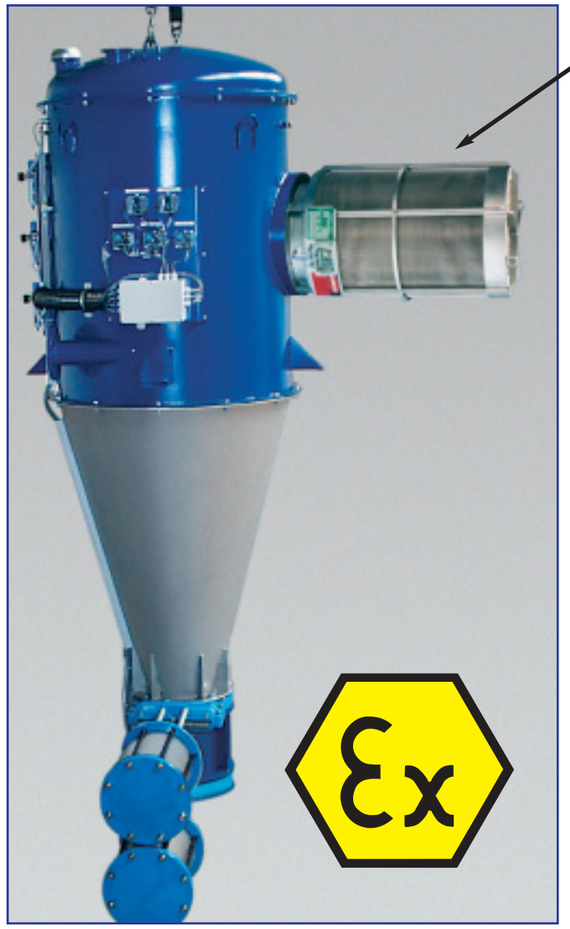
- ❒ Motor power: 6 x 7,5 kW
- ❒ Air flow: 3.000 m^3/h
- ❒ Vacuum: 340 mbar
- ❒ Filter surface area: 22 m^2
- ❒ Disposal in big bags
- ❒ Piping: 250 m
- ❒ Suction points: 40
- ❒ Customized, automatic suction power control

Stationary vacuum system

... for extracting and vacuuming chips and fine dust on machines and cleaning at several suction points simultaneously

- ❒ Motor power: 23 kW
- ❒ Air flow: 6.000 m^3/h
- ❒ Vacuum: 160 mbar
- ❒ Filter surface area: 102 m^2
- ❒ Disposal in 500 litre tipping container
- ❒ Piping: 120 m
- ❒ Suction points: 25

Safe systems for hazardous areas (ATEX 94/9/EC)



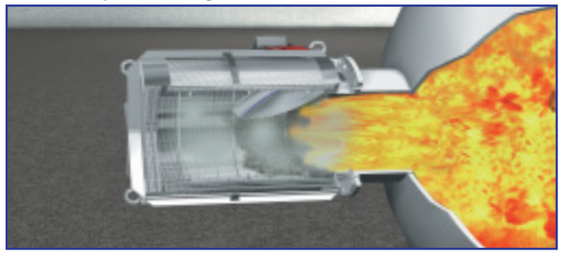
Explosion-proof system with pressure relief for use in zone 22 (pursuant to Atex 94/9/EC)

- ❒ Motor power: 30 kW
- ❒ Air flow: 1.400 m³/h
- ❒ Vacuum: up to 800 mbar
- ❒ Filter surface area: 11 m²
- ❒ Piping: 800 m

1. Casing pressure relief by means of ECO-Q-Rohr (Q-pipe) relief mechanism
2. Explosion isolation in form of product barrier chokes
3. Pressure isolation of raw gas side by means of explosion diverters
4. Fill level monitoring of product barrier choke
5. Pressure isolation of clean gas side by means of explosion protection valve (optional)

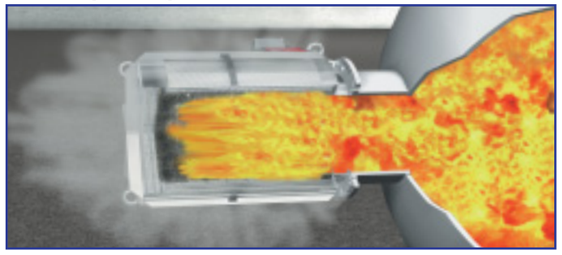
1. How the Q-pipe works

A. Development stage

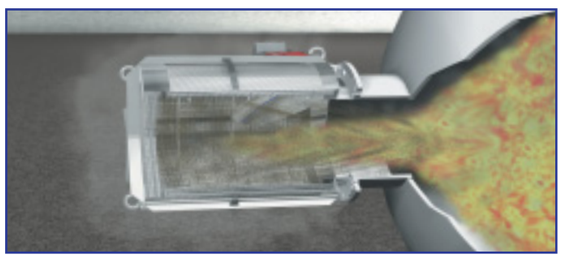


The Q - pipe consists of an integrated burst disc which controls the explosion wave and releases it into the Q – pipe. (Fig. A + B)

B. Over-greasing effect

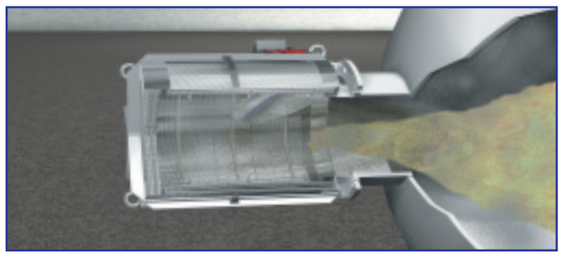


C. Contraction effect



The flame gases, which can reach temperatures of up to 1,500°C, are cooled down in a special stainless steel mesh filter cage. This reduces the volume of gas that escapes, and thus extinguishes the flame. (Fig. C)

D. Successful internal explosion pressure relief



The specially developed integrated stainless steel mesh filter construction ensures that no burnt or unburnt dust escapes. (Fig. D)

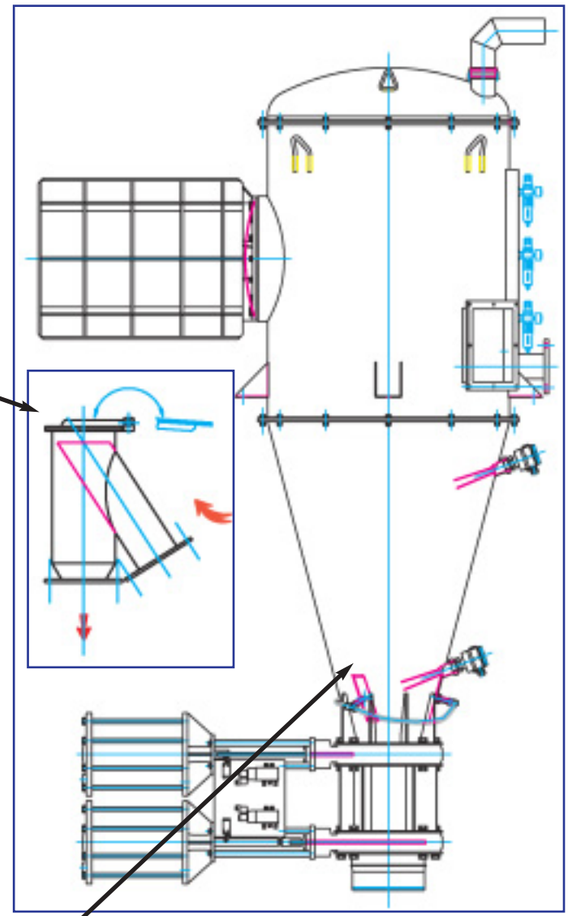
2. Explosion isolation

The simplest and most economic type of explosion isolation is to fit a product barrier choke in the discharge of the filter casing to be protected.
You can, for example, safely protect a filter box from explosion from the discharge area by adhering to a minimum fill level.
RUWAC discharge options:
- Double slide system
- Tubular throttle valve
- Rotary feeder

The size of the product barrier choke depends on the properties of the material, geometrical proportions and the respective load.

3. Explosion diverters

Divert the explosive fronts by approximately 180° thanks to their construction.
In the event of an explosion, the main energy front is channelled in a straight line through a bursting diaphragm or cover plate (response pressure: <0.1 bar) into a basket guard, which serves to protect against scattering parts and flame jets.



4. Fill level monitoring

Chokes consisting of an adequate depth of product (e.g. at the silo discharge) prevent flames from penetrating the product.