



EXTRACTION AND SEPARATION AT THE WIRE DRAWING PROCESS

TASK

Extremely fine wires are made of almost all types of metal. The larger part is made of steel and is used in a lot of industries (steel cables, tire wires, nails, fences, welding wires etc.). In many cases, the surfaces are also topically treated (galvanized, plastic-coated, painted etc.). At the further considerations, there is only followed up the drawing process.

When drawing steel, there is mostly used hot or cold rolled, but also alloyed steel as base material. Depending on the type of steel, there are caused foreign substances during the welding process which have to be extracted and separated.

These are:

- Scales dust
- Swarf and abrasion from grinding material
- Drawing soap (Calciumstearate and Natriumstearate)

Since these are combustible/explosive dusts (ST1), it is necessary to elaborate a safety concept according to the ATEX guidelines 137 (Operator/Employer/Plant for wire drawing) and 95 (Manufacturer/Placer/Manufacturer of wire drawing machines) to minimize the risk of explosions.

To avoid dangers to health and to adhere to the legal conditions treating those dusts, there are needed well-engineered separating systems.

SOLUTION

Keller Lufttechnik disposes of a longtime experience and substantial knowledge at extraction and separation processes - especially for that range of duty. We are able to offer an appropriate solution for the respective operating process.



Decentralized filter with flameless pressure discharge



Centralized filter with constructive explosion protection



WE CLEAN THE AIR.



ADVANTAGES

- Optimal dust collection and air volume balancing and thus minimal air volumes, investing costs, operating costs and required space
- System design taking into consideration the latest and most important guidelines
- Individually designed separating systems
- Substantial knowledge of the drawing processes
- Competent After-Sales Service with extensive service, spares inventory and short reaction times
- Air ventilation taking into consideration the TRGS 560
- Cost-saving explosion and fire protection alternatives
- Container exchange resp. dust discharge during system operation
- High-efficient dust filter
- Discharge systems, attached to the dust amount
- Filter and separation technology with exhaust air after treatment systems
- System technology with constructive explosion protection after hazard analysis in coordination with the customer
- Solutions for centralized systems for entire manufacturing plants or decentralized per drawing line, depending on the requirements

REFERENCES

Badische Drahtwerke GmbH, Kehl/ Rhein
Bekaert - Tinsley, B-Hemiksen
Bekaert N.V, B-Ingelmunster
Berkenhoff GmbH, Herborn
Drahtwerk Ebersbach GmbH & Co. KG, Ebersbach/Fils
Drahtwerk St. Ingbert GmbH, St. Ingbert
Goodyear Wire Plait, L-Colmar-Berg
HBS Hessische Bewehrungsstahl GmbH, Hattersheim
BBS GmbH; Bayerische Bewehrungsstahl, Dinkelscherben
ISAF Drahtwerk GmbH, Brielow
Neckar Drahtwerke GmbH, Eberbach
Westfälische Drahtindustrie GmbH, Rothenburg/Saale



Keller Lufttechnik GmbH + Co. KG
Neue Weilheimer Str. 30
73230 Kirchheim unter Teck
Fon +49 7021 574-0 · Fax 52430
www.keller-lufttechnik.de