

**ATD-
Pressure
Gas System**



**ATD-Abbausysteme GmbH
Germany**

CARDOX[®]

ATD-Pressure Gas System CARDOX®

More than 50 years is a long time to be on the job; but that is how long the ATD-Pressure Gas System is specialized in the removal of build-up and cross-sectional obstructions in the Cement Industry. Experience like this teaches you important things.

That is how ATD have been able to continually develop new products, new procedures and safety features to make the ATD-System the safest, most reliable and most effective system of its kind world-wide.

The ATD-Pressure Gas System is especially engineered to reach the requirements for its use during the production with none or minimum shut-down time and feeding reduction; it offers the on line-removing of build-up under heat. Regardless where the problems are located: preheater tower, Lepol grate, feed shelf, riser section, feed pipes, cyclones, inlet chamber, rotary kiln, cooler and storage facilities. In all those areas the ATD-Pressure Gas System offers counting advantages for the benefit of each

- by easy placing of Bases ATD to react on changing build-up conditions
- well-aimed „blasts” only where the build-up really occurs
- dramatically enhanced safety by working from outside the plant without the risks of opening all the doors and poking holes that expose the workers to the hot material
- precisely definition of the capacity and effect of the ATD-Tubes
- no damaging of the plant by using safety distances to the refractory

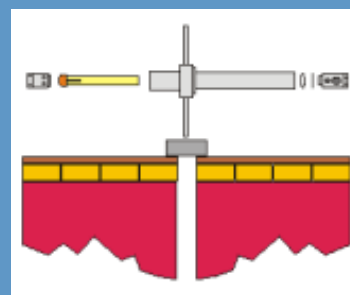


24 hours a day, 7 days a week

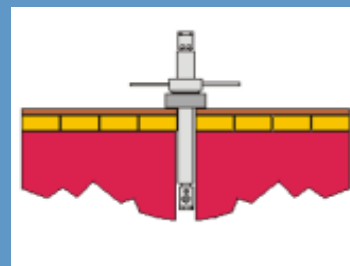
our clients have to keep their material moving. But at every stage of their operation, build-up and chokes can shut them down. Changing quarry conditions and the rising amount of secondary fuel components are leading to more unwanted deposits and build-up. Productions losses and downtimes can be the expensive consequences.

Cement producer: effective, fast, flexible, economical, safe.

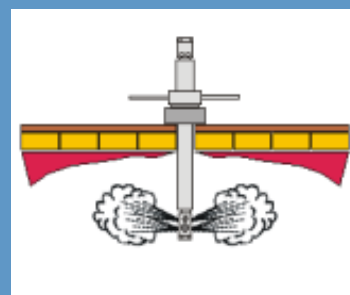
- powerful, fully controlled capacity of the ATD-Pressure Gas Tubes suited to the special requirements of the plant
- build-up removal within minutes by using ATD-Tubes „ready for action”
- extremely high quality standards, „Made in Germany”



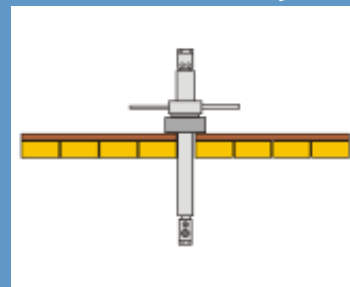
Load it up.

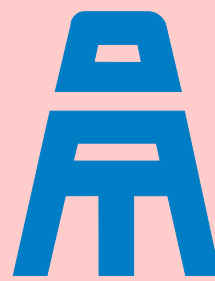


Lock it in.



Blow it away.





- exclusive use of controlled and authorized equipments by the valid laws and regulations
- World-wide operating service structure by experienced representatives
- to be used by well trained operators through experienced ATD-crew members according clear Operating Instructions

How it is working:

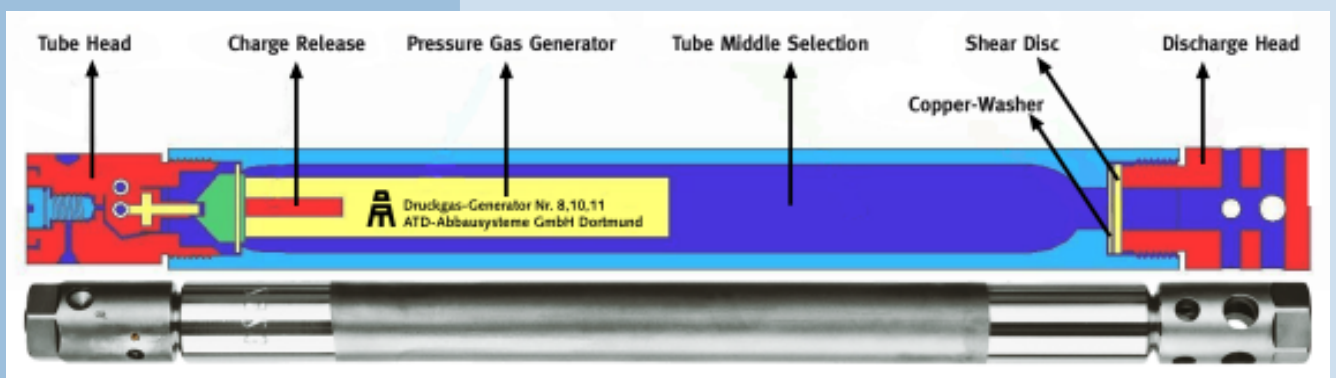
Inside the ATD-Pressure Gas Tube, the pressure of the CO₂ charge gets consequent increased by activating the ATD-Pressure Gas Generator. At a very pre-determined level, the Shear Disc blows and the released CO₂-gas is directed by the Discharge Head exactly where required.

How its been used:

The ATD-Pressure Gas Tube is been used directly where the build-up occurs. As the entry to the obstruction, ATD-

Base sockets are installed i. e. on the steel shell of the plant. Through the insertion hole, the ATD-Pressure Gas Tube will be inserted into the build-up with the Discharge Head in safe distance behind the refractory.

Locked with the ATD-Gripcase to the ATD-Base, the ATD-Tube is breaking up the deposits by the strong release of its CO₂-charge.



ATD-Pressure Gas System CARDOX®

ATD is offering autarkical working Systems that make the trained operators of each plant working independently and flexible whenever necessary.

For practical application of the System, the following items are required additionally:

- ATD-Drilling Equipment to produce the necessary boreholes
- Priming Equipments to ignite the ATD-Pressure Gas Tubes
- ATD-Filling Equipments to charge the ATD-Pressure Gas Tubes

thicker, well designed drilling equipments are necessary in order to produce the insertion holes for the ATD-Tubes.

Drilling by hand or using special designed Drill Rigs; with the ATD-Drilling Equipments accurate bore holes can be produced in short time even under extreme conditions.

Special drill rods as well as special designed heat resistant drill bits, both suited regarding their caliber to the diameter of the ATD-Tubes, are available with the ATD-System.

For checking the connections as well as for safety reasons, a special Safety Circuit Tester will be needed also.

ATD-Filling Equipment

In order to function, the ATD-Tube must contain the appropriate charge of CO₂ corresponding to it's size and volume.

Depending on the different requirements of the plants, ATD developed three different types of Filling Equipments.



ATD-Drilling Equipment

Holes in many soft or tacky, caked materials can be satisfactorily made by merely pushing or reaming the holes. If the material gets harder and

ATD-Priming Equipment

The blast is activated by means of a priming machine which is directly connected by cable to the contacts of the Tube Head.

In combination with the ATD-Vice Spanner, packing and refilling of the Tubes just takes a few minutes.



ATD-Abbausysteme GmbH Headquarter

www.atd-cardox.com

Represented by: