TUSILO PU

June 2013

TUDERTECHNICA

excellence in design and manufacture of specialty hoses

STEEL PLANTS

CASE STUDY

THE SITUATION

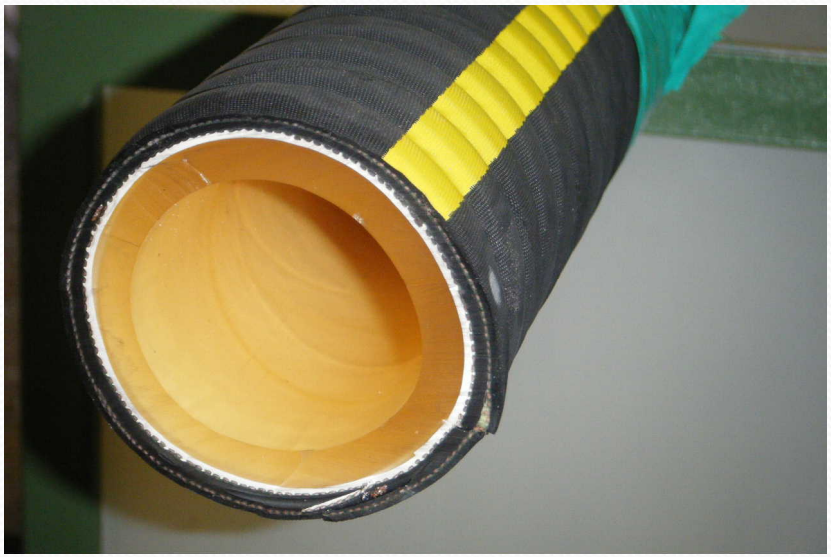
HIGHLY ABRASIVE CARBON BLACK IS INJECTED WITH COMPRESSOR AIR THROUGH HOSES INTO ELECTRIC ARC FURNACES TO HELP REGULATE THE CHEMISTRY AND TEMPERATURE OF THE MOLTEN STEEL.

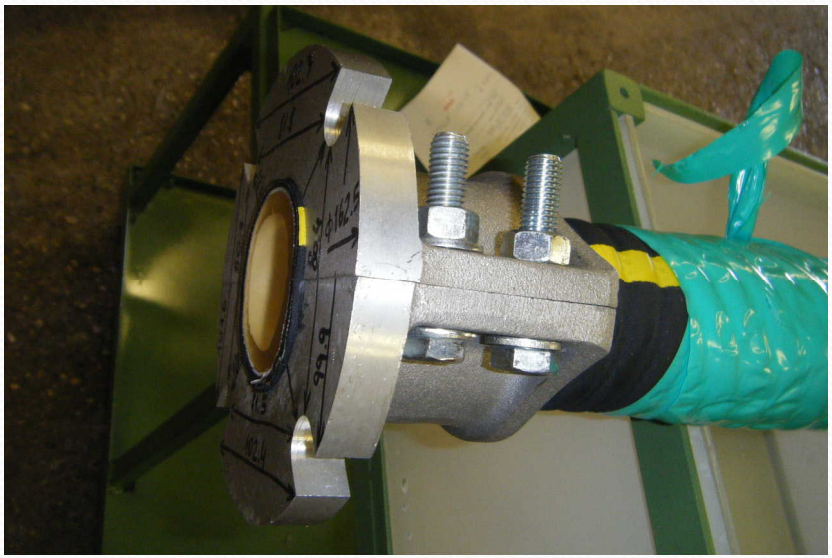
TUDERTECHNICA SOLUTION

TUSILO PU OND STRAIGHT-THROUGH DESIGN ATTACHEMENT HELP MINIMIZE FLOW RESTRICTIONS AND ABRASION FAILURES, KEEPING THE FURNACES IN OPERATION LONGER BETWEEN SCHEDULED MAINTENANCE EVENTS.

TUSILO/PU/OND/CR

PARTICULARLY SUITABLE FOR ABRASIVE BULK MATERIAL (AIR/WATER FLUIDIZATION OF GLASS, SAND, STONE CHIPS, COAL DUST)





TUSILO PU OND CR COMPARED TO CERAMIC Tube Hose

FEATURES	*TUDERTECHNICA/ TUSILO PU OND*	*CERAMIC TUBE*
BENDING RADIUS – DN 102	510 mm	1500 mm
WEIGHT DN 102	3.01 Kg/mt	8,56 Kg/mt
Cover Flame resistance	Good (CR compound)	No (SBR compound)
Tube Oil resistance	Good	No resistant
Tube service life	Factor of 1	4 time higher
Hose service life	Factor of 1	Sometime equal : depends strongly by contact medium or external environment
Delivery time	2 / 3 weeks or less	6 / 8 weeks
Minimum Order Quantity	No	Yes
Market Price	Factor of 1	5/6 Time higher

TUDERTECHNICA VALUE ADVANTAGES

COST EFFECTIVENESS

THE COST OF POLYURETHANE HOSES IS MUCH LOWER THAN ANY CERAMIC TUBE HOSE (ABOUT 3–5 TIMES LESS THAN PRICE IN THE EUROPEAN MARKET). IN THIS WAY ALSO THE COST OF INVENTORY IS REDUCED.

REUSABLE COUPLINGS

WHEN THE HOSE BREAKS, THE CUSTOMER CHANGES THE HOSE BUT KEEPS THE ALUMINUM FLANGES. THIS IS VERY IMPORTANT BECAUSE WITH THE SOLUTION USED TODAY THE CUSTOMER THROWS AWAY THE HOSE AND THE FLANGES TOGETHER.

TUDERTECHNICA VALUE ADVANTAGES

ABRASION RESISTANCE

THE POLYURETHANE HAS SUPERIOR ABRASION RESISTANCE THAN TRADITIONAL RUBBER.

THE ABRASION LOSS MEASURED IS 26MM^3 (4 TIMES LOWER THAN TRADITIONAL COMPOUNDS).

IN COMPARISON WITH STANDARD SAND BLASTING HOSES THE LIFE IS 6-8 TIMES HIGHER.

TUBE WITH LOW FRICTION RATE

THE FLOW OF MATERIAL IS FACILITATED

(REDUCED TIME FOR UNLOADING PROCESS).

TUDERTECHNICA VALUE ADVANTAGES

GOOD BENDING RADIUS

THE BENDING RADIUS IS SUPERIOR COMPARED TO CERAMIC TUBE HOSES.

FLAME RESISTANT COVER

INCREASED SAFETY FOR BOTH OPERATORS AND EQUIPMENT.

TUDERTECHNICA VALUE ADVANTAGES

CUSTOMIZED COVER

DIFFERENT COVER STYLES ARE AVAILABLE. THE SHAPE CAN BE SMOOTH, CORRUGATED OR WIDE CORRUGATED.

AVAILABLE ALSO WITH GLASS FIBER OUTSIDE FOR PROTECTION AGAINST HEAT AND MELTING DROPS OR WITH GLASS FIBER AND SILICONE COVER FOR PROTECTION FROM ABRASION AND DISPERSION OF MICRO-FIBERS.

OPTIMIZATION OF HOSE CONSTRUCTION

THE HOSE DESIGN IS THE PROPER BALANCE BETWEEN PERFORMANCE OF TUBE AND COVER. NORMALLY THE CERAMIC TUBE HOSE IS CHANGED BECAUSE OF A FAILURE OF THE COVER DURING OPERATION.

TUDERTECHNICA VALUE ADVANTAGES

QUICKER DELIVERY TIME

POLYURETHANE HOSES DO NOT REQUIRE SET UP OF MANUFACTURER'S PRODUCTION EQUIPMENT.

WIDE RANGE OF DIAMETERS

INSIDE DIAMETER FROM 10 MM TO 508 MM.

LENGHT 40 MT UP TO 102 MM INSIDE DIAMETER, 12 MT UP TO 508 MM INSIDE DIAMETER.

TUDERTECHNICA
VALUE ADVANTAGES

- REUSABLE COUPLINGS
- TUBE ABRASION RESISTANT
- TUBE WITH LOW FRICTION RATE
- GOOD BENDING RADIUS
- FLAME RESISTANT COVER
- CUSTOMIZED COVER
- OPTIMIZATION OF HOSE CONSTRUCTION
- QUICKER DELIVERY TIME
- WIDE RANGE OF DIAMETERS
- COST EFFECTIVENESS

APPLICATIONS

- STEEL INDUSTRY
- FOOD INDUSTRY:

  CEREALS, RICE, GRAIN, SEEDS, FLOUR, SUGAR
- PLASTIC INDUSTRY:

  PVC, PE, POWDERS
- CERAMIC INDUSTRY:

  CARBONATE POWDER

BENEFITS

ABRASION RESISTANCE

HIGHER THAN STANDARD NATURAL RUBBER COMPOUND 26MM3 (4 TIMES LOWER THAN TRADITIONAL COMPOUNDS)

TEMPERATURE