

The COVA logo consists of the word "COVA" in white, bold, sans-serif capital letters, positioned to the left of a horizontal red bar. This entire graphic is contained within a dark blue oval shape.

INJECTION TUBES
DISTRIBUTING SYSTEMS

FROM GRAPHITE



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Injection tubes and distribution system for Injection of Gases and additives into molten Metal

For the cleaning of molten metal, gases or powder is introduced into the melts in controlled quantity. Graphite COVA supplies tubes, porous heads and nozzles for this application.

Graphite COVA products used for

- Degassing and flushing of molten Aluminium with Argon, Nitrogen, Chlorine or mixture of these gases.
- Cleaning and de-oxidation of molten metal by means of Nitrogen with precise quantities of Phosphorus.
- Desulphurisation of molten cast iron and production of spheroidal cast iron by means of Magnesium powder

Our special degassing tubes with special chemical and physical properties along with excellent resistance against thermal shocks are suitable for this application.

The chemical resistance and low wetting of our graphite by molten metal is an added advantage.

The graphite tubes are non meltable and does not react with molten metal and does not contain impurities that can be dissolved in non-ferrous metal melts.

Attention has to be paid to the oxidation of graphite in air at temperatures above 500 deg.cen. This temperature dependant oxidation leads to graphite wear and affects the life time.

Graphite COVA has developed a Special anti oxidation impregnation called OH26 – 1.

This impregnation fills the pores and surface of the graphite which hinders the Oxygen attack.

The average life time is considerably extended by this special impregnation.

Gas injection systems:

Graphite COVA can supply injection systems as per customer specific design. The rigid system will have simple tubes having threads at the ends.

Distributers can be

- Porous head
- Closed tubes with side vents
- Distributer heads and distributer crosses.



Standard grade CCF/XN

Technical data (Average values valid in pressing direction)

Nomenclature	Value	Unit
Bulk density	1,66 - 1,75	g/cm ³
Porosity	14 - 17	%
Specific electrical resistance	6 to 8	Ωmm ² /m
Compressive strength	30 - 40	N/mm ²
Bending strength	20 - 25	N/mm ²
Modulus of elasticity	11	x10 ³ N/mm ²
Ash content	< 0,1	%
Coefficient of thermal expansion	1,8 - 2,5	10 ⁻⁶ / K
Thermal conductivity	120 - 140	W/mK
Maximum grain size	0,25	mm

Nominal sizes of standard tubes

(Unmachined tubes in CCF/XN grades)

Outer diameter (mm)	Inner diameter (mm)	Length (mm)
32	22	2740
38	25	2740
50	38	2740
50	13	1800
50	13	2000
50	13	2400
50	13	2740
75	19	1800
75	19	2400

Special dimensions and smaller tolerances on request.

Injection tubes and distributors can be supplied fully machined according to customer drawing.