

Presentation

We are an engineering company with a large experience in industrial installations for the reception, storage, transport as well as the ingredient dosing into manufacturing processes. Moreover, we are specialists in developing technology, producing machinery and creating installations for a wide range of sectors such as the feed and food, cosmetic, chemical, and pulp and paper industries.

Over the last 30 years we have been developing a great number of successful installations and controls to help our customers in their needs of dosing great quantity of ingredients.

At MANGRA we design, manufacture and set up storage and reception tanks, chemical preparation equipment, ingredient dosing, filtration and process control systems, heaters exchangers (steam and electrical). We distribute the complete piping and all the components needed to perform a turn-on-key installation.

Thanks to our highly qualified team which is permanently innovating and doing research we own a leadership position in the ingredient dosing and control market.

What is more, because of our state of the art dense phase pneumatic transport technology, which transports either granular or powder material, it replaces conveying belts, bucket elevators, screw conveyors and dilute phase pneumatic transport.

Not only this innovative technology allows energy cost savings, but it also has a flexible application and no maintenance at all. Finally, our system optimizes significantly the conveyance process and minimizes the installation and startup costs.



Our customers will be assisted by specialized engineers in the design of the installation, technical support and mechanical assembling. Furthermore under customer request we can supply with turnkey basis. Equipment available in AISI 304 or AISI 316 stainless steel, for temperatures up to 200°C and explosionproof ATEX 21 and ATEX 22 configurations.

Our technical office is at your disposal to develop any needed customized request to help you grow your business. We are proud to claim that our customers are provided with the most competitive advantages for their businesses.

Main advantages

- 01

Closed system which avoids dust emissions and contamination.
- 02

Conveyance of the product beyond 500 m. Capacity up to 200 tph.
- 03

Smooth transport system, specially designed for fragile product.
- 04

Low maintenance, durability of the material.
- 05

Low consumption of air and energy.
- 06

Flexible conveyance path which optimize the space needs.
- 07

Great efficiency and performance.
- 08

Small conveyance pipe diameter.
- 09

Ability to convey abrasive products using slow speed.
- 10

Practical, easy to install and expand.
- 11

Fast return of investment.
- 12

Lighter and heavier particles and not separated apart during the transport process.
- 13

Small air filter at destination.



Comparative

Dense phase vs dilute phase pneumatic conveying

	Dilute phase pneumatic conveying with blower		Dense phase pneumatic conveying with pressure vessel
Flow	19T/h		19T/h
Distance	150m		150m
Pipe diameter	Ø204mm	-40%	Ø115mm
Air flow	4.000m³/h	-90%	400m³/h
Conveying pressure	0,8bar		3,1bar
Power consumption: Blower / Compressor	99kw	-63%	35kw

Dense phase pneumatic conveying modes



Some conveyed products

A

Acrylamide
Acrylic modifier
Active carbon
Adipic acid
Alumina
Alumina cement
Aluminium fluoride
Aluminium nitride
Aluminium silicate
Anhydrous borax
Ascorbic acid
Atomized aluminium powder

B

Barium and strontium sulfate
Barium sulfate
Barley malt
Base granules detergent
Bed ash
Bentonite
Bicarbonate
Biscuit mix
Black cement
Black sand
Blended glass batch
Bone meals
Borax
Boric acid
Bran flakes
Bread crumbs
Brown sugar
Burnt sand

C

Cake mix
Calcined alumina
Calcium aluminate
Calcium carbide
Calcium carbonate
Calcium fluoride
Calcium oxide
Calcium phosphate
Calcium silicate
Calcium stearate
Calcium sulfate
Carbon black
Carbon black granules
Carbon black pellet
Carbon Mix
Carnalite
Cat Food
Catalyst
Celite
Cellulose
Cement
Cement blend
Ceramic
Ceramic dust
Cereals
Chamomile
Charred wood
Chewing gum base
Chicken seasoning
China clay
Chopped fiberglass
Chromic acid
Citric acid
Clay
Clay calcined
Clay tile
Coal
Coal dust
Coal slag
Coarse salt
Cobalt oxide
Cocoa

Coffee grounds
Coke
Coke Calcined
Copper Powder
Copper Powder
Corn
Corn Gluten Meal
Corn Grits
Couscous
Crispy rice
Crushed glass
Crushed rock
Cryolite dust

D

Desiccated coconut
Dextrose
Diatomaceous earth
Disodium phosphate
Dog Food
Dolomite
Dried Anthracite
Dried peas
Dried sludge
Dried sludge Pellets
Dry ash
Dry soap

E

Epoxy resin
Ethylene vinyl acetate

F

Felspar
Ferrite
Fiberglass
Fine boric acid
Fine dry ceramic
Fine salt
Fish food
Fly ash
Foundry dust
Freeze dried coffee
Frit
Fructose
Fruit granulated sugar
Fruit granulated sugar
Fumed silica

G

Glass batch
Glass beads
Glass cullet
Glass frit
Granola
Granulated sugar
Graphite
Green coffee beans
Green oats
Groats
Ground gypsum
Gypsum

H

Hydrated alumina
Hydrated lime
Hydroquinone

I

Ilmenite
Iron oxide
Iron oxide brown
Iron oxide red
Iron powder

L

Lactose
Lignite
Lime
Limestone
Long grain rice

M

Magnesite
Magnesium chloride
Magnesium oxide
Maltodextrin
Manganese dioxide
Marble chips
Medicinal herbs
Medium grain rice
Melamine powder
Metal powder
Metallurgical coke
Mica
Mica Ground
Micronized coal
Milk powder
Milled zircon
Mineral black
Mixed sand and soda ash
Molybdenum oxide
Monoammonium phosphate
Mortar mix
Mush

N

Nickel carbonate
Nickel granules
Nickel oxide
Nickel sulfate
Nylon pellets

O

Oat flakes
Olivine sand

P

Paper pulp
Parmesan cheese
Peanuts
Pellet silicon dioxide
Pelletized paper pulp
Perlite
Petroleum coke
Pharmaceutical gelatin
Phenolic resin
Phosphoric anhydride
Pink Beans
Plastic caps
Plastic Pellet
Plastic resin pellets
Polyester
Polyester pellets
Polyethylene
Polyethylene glycol
Polyethylene pellets
Polyethylene powder
Polymerized urea
Polypropylene
Polypropylene pellets
Polystyrene
Polystyrene pellets
Polyvinyl chloride
Popcorns
Portland cement
Potash
Potassium carbonate
Potassium sulfate
Potato flakes
Potato flour
Potato starch
Prilled ferrous sulfate
Pvc compound
Pvc powder
Pvc resin
Pyrite concentrate

R

Reclaimed sand
Red lead

Refractory batch
Resin
Resin copolymer
Resin powder
Resin-coated sands
Rice
Rice Grains
Rock dust
Rye flour

S

Saccharin sodium
Salt crystals
Sand
Scrap glass
Silica
Silica flour
Silica sand
Silicates
Silicon carbide
Silicon dioxide
Silicon powder
Snuff tobacco
Soda ash
Sodium bicarbonate
Sodium carbonate peroxide
Sodium chlorate
Sodium citrate
Sodium fluoride
Sodium nitrate
Sodium perborate
Sodium percarbonate
Sodium polyacrylate
Sodium stearate
Sodium sulfate
Sodium triphosphate
Soy protein powder
Soybean meal
Spodumene
Starch
Sugar
Sugar mint
Superabsorbent polymer

T

Talc
Tannin free tea
Tea
Tile dust
Titanium dioxide
Titanium slag
Toasted coffee beans
Tobacco
Trisodium phosphate powder

U

Urea prills

V

Vermiculite
Vinyl resin
Vinyl tile chips

W

Wet clay
Wheat flour
Whole corn
Wollastonite

Y

Yellow cement

Z

Zeolite
Zinc oxyde
Zinc powder
Zinc stearate
Zirconium
Zirconium carbonate



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Conveying
of solid products
in dense phase

