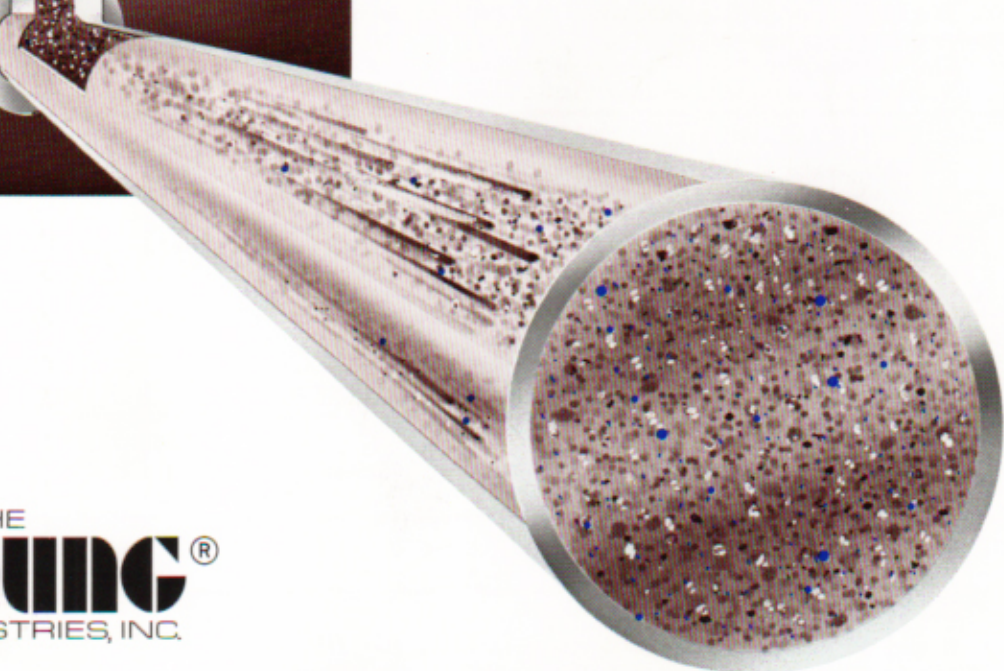
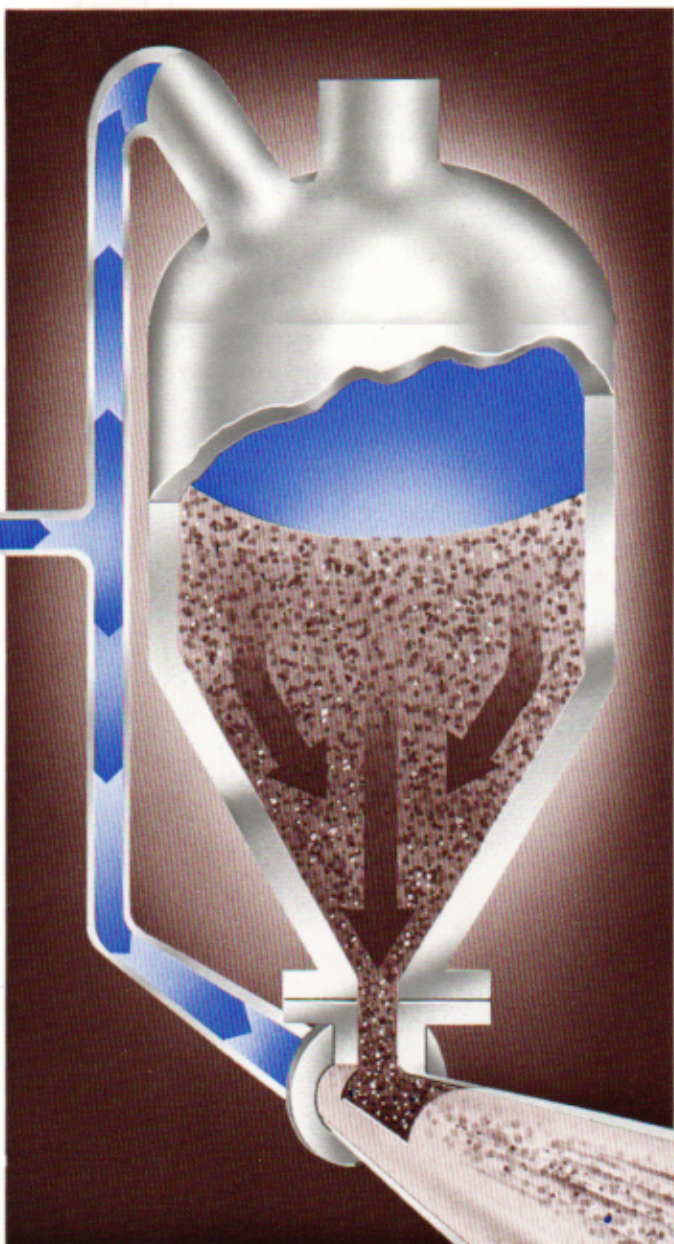


MULTI-PHASETM
PNEUMATIC CONVEYORS



THE
Young[®]
INDUSTRIES, INC.

The Versatility of Control

Young Industries Multi-Phase Pneumatic Conveyor is a low velocity, low turbulence dense phase conveying system, offering users several advantages: decreased particle attrition, less abrasive wear on conveying equipment, and reduced energy consumption.

This conveying system is adaptive to meet your individual bulk material handling requirements. Product characteristics, capacity, conveying distance, and operating conditions (horizontal run and vertical lift,) are carefully factored into each system design.

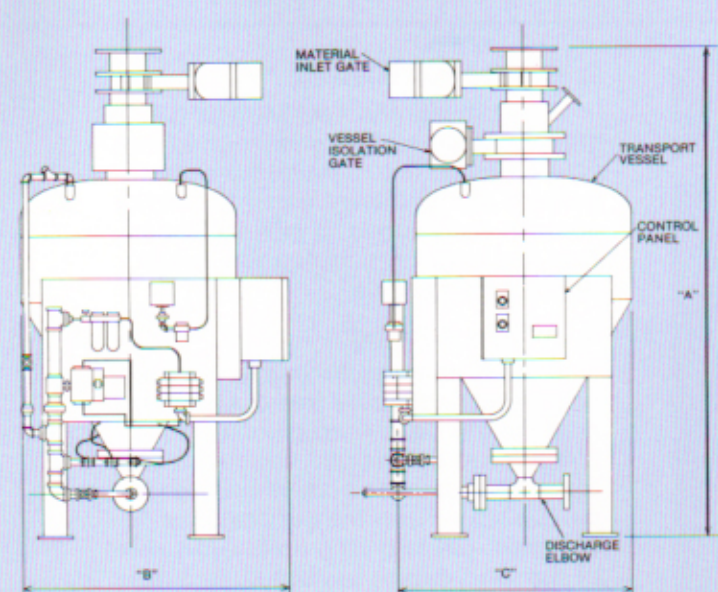
The greater versatility of the Young In-

dustries Multi-Phase Conveyor results from its multiple control features—conveying density of the material is adjustable at any of four points: the convey line, transport vessel, location of flow control nozzle, and size of flow control nozzle. The amount of air flow to the convey line as well as to the transport vessel are controlled independently, while the material flow control nozzle, with infinite adjustability, controls material flow into the convey line. This combination of control points allows the product to be conveyed at maximum density, low turbulence, low velocity, and minimum energy consumption.

How to Select a Good Dense Phase Conveyor

FEATURES	YOUNG INDUSTRIES	OTHERS
GAS USAGE: Uses the natural conveying characteristics of the bulk material to determine the lowest possible pressure and air volume required for transport.	✓	?
VELOCITY: The lowest possible air volume and pressure, according to the laws of physics, therefore results in a lower velocity.	✓	?
TURBULENCE: Materials are transported in as tightly packed a configuration as possible.	✓	?
ON-LINE TUNING WITH EASY INSTALLATION AND START-UP: The design allows adjustments of air volumes even during material transport, for greater material handling adaptability. The unit is completely assembled and ready for electrical and conveying line attachment. Start-up requires very little time or effort: a simple adjustment per conveyance requirement of the specific application.	✓	?
MATERIAL TO AIR RATIO: With air usage at the lowest possible pressure and volume, high material-to-air ratios can be obtained.	✓	?
INLET VALVE DESIGN: Standard stock-type valves are utilized, rather than specially designed valves, to reduce down-time and maintenance costs.	✓	?
CONVEY-LINE RESIDUE: The convey line is free of any product at the end of each cycle, eliminating cross-contamination and start-up plug condition.	✓	?
ANTI-PLUG FEATURES: An optional anti-plug system can be utilized to prevent down-time due to process upset conditions.	✓	?
EASY TO CLEAN: The unit is self-cleaning.	✓	?
CONVEYING TIME: Based on the natural material characteristics, the unit uses true dense phase conveying, resulting in the highest material-to-air ratio with the lowest conveying time.	✓	?
TECHNICAL SUPPORT SERVICE: Service is available in various forms: test work, installation, and field start-up.	✓	?

Multi-Phase Dimension and Capacity Chart

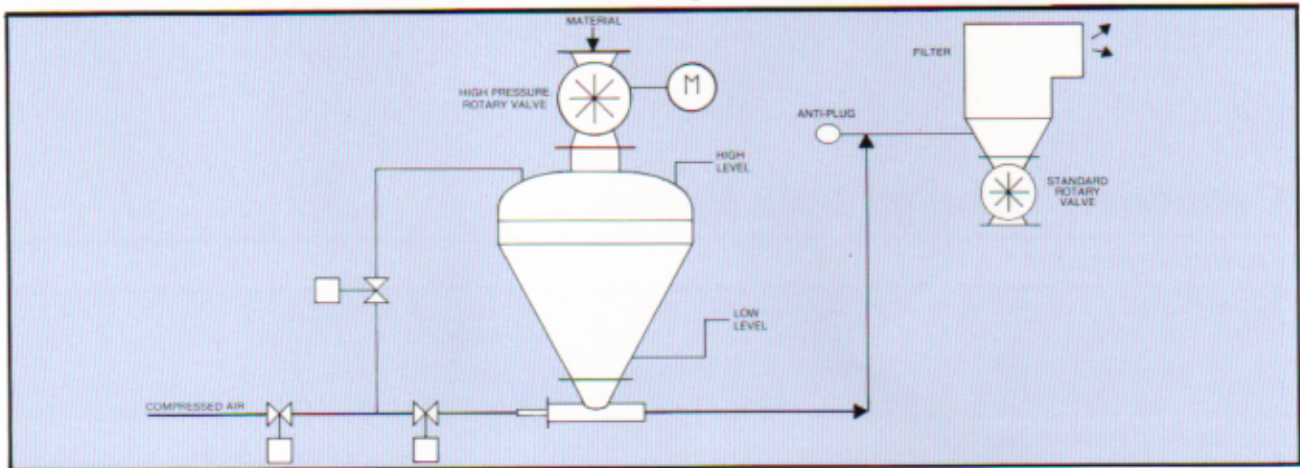


MODEL	CONVEYING LINE DIAMETER	"A"	"B"	"C"	CAPACITY AVERAGE POUNDS/HR.
3	1.5	66	36	30	8000
5	1.5	80	48	42	8000
10	2.0	90	48	42	14,000
15	2.0	98	48	42	14,000
15	2.5	98.25	48	42	22,000
15	3.0	98.50	48	42	28,000
20	2.0	101	60	54	14,000
20	2.5	101.5	60	54	22,000
20	3.0	101.75	60	54	30,000
25	2.0	112.5	60	54	14,000
25	2.5	113	60	54	22,000
25	3.0	113.5	60	54	30,000
25	3.5	113.75	60	54	40,000
35	3.0	129	60	54	32,000
35	3.5	129.5	60	54	40,000
35	4.0	129.75	60	54	50,000
50	3.5	136	72	66	42,000
50	4.0	136.25	72	66	52,000
50	5.0	136.5	72	66	78,000
75	3.5	149.25	72	66	42,000
75	4.0	151.5	72	66	54,000
75	5.0	152	72	66	78,000
100	3.0	158.75	84	78	36,000
100	3.5	161	84	78	44,000
100	4.0	161.5	84	78	54,000
150	4.0	184.25	84	78	56,000
150	5.0	184.75	84	78	80,000
150	6.0	185.25	84	78	108,000
200	4.0	192	96	90	56,000
200	5.0	192.5	96	90	82,000
200	6.0	192.75	96	90	108,000
200	8.0	194	96	90	162,000

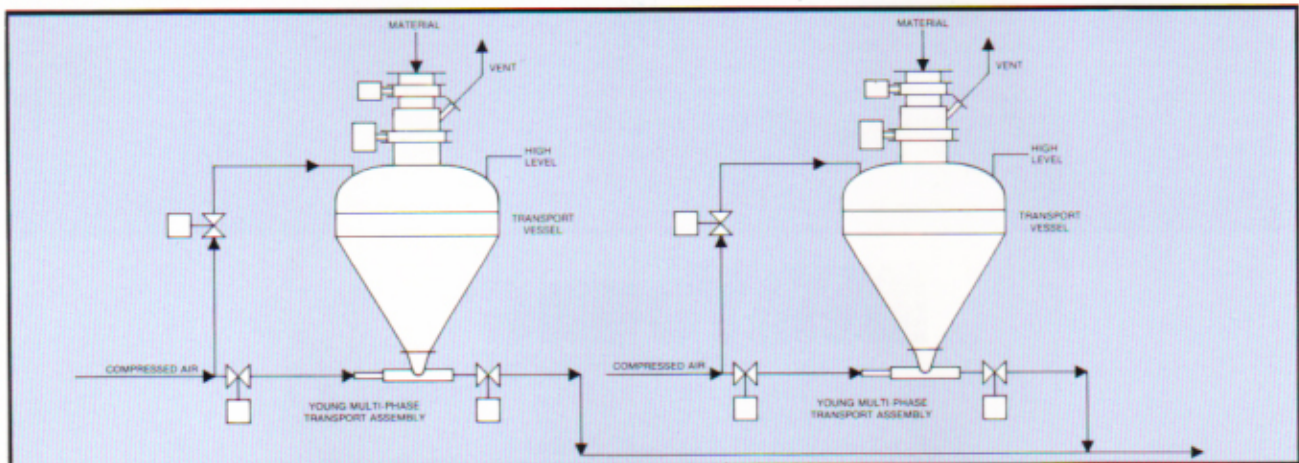
NOTICE: The photographs, illustrations, drawings and descriptions contained in this publication are not intended to depict actual operating conditions or to suggest operating procedures. They are included only for the purpose of portraying the features of the machinery. The manufacturer's installation, operation and maintenance instructions and recommended safety procedures must be expressly followed during installation, operation or maintenance of the equipment.

NOTE: All Dimensions are in Inches
Capacity Based on 50 lbs. per cu.ft. Bulk Density

Continuous Dense Phase Transport System



Continuous Dense Phase Transport System (Batch Type)



There are three ways Young can determine if a MULTI-PHASE system is suited for your application...



1. At Young Industries Test Lab:

Your material can be tested in Young Industries Multi-Phase Test Module, and analyzed by the Data Acquisition and Control System.

2. In-Process Testing:

Young Industries Test Module can be shipped to your plant and inserted into your process. The material from your process can be tested using the analog sensors and gauges to monitor the air flow and pressures, giving you actual product design data.

3. At Site Testing:

When in-process testing is not possible, Young Industries Stand Alone Test Module and Data Acquisition Control System can be shipped directly to your plant. The material from your process can be tested and the performance analyzed, yielding an on-site evaluation of the multi-phase system in your process.

FEATURES:

- real time data logging and display
- remote operation
- analysis of pressures and air flows

GENERATING:

- full test report
- on-site data analysis
- graphs and controls of each test cycle

Commonly Handled Bulk Materials

Food/Pharmaceutical

Aspirin Powders	Cocoa Powder	Salt	Starch
Bleach	Cornflour	Seeds	Talcum
Cereals	Detergent Powders	Spices	Tea
Citric Acid	Rice	Sugar	

Chemical/Miscellaneous

ABS Compound	Calcium Carbonate	Fertilizers	Pebble Lime	Rubber Granules
Acetate	Cement	Fly Ash	Phosphates	Sawdust
Activated Carbon	Clay Powders	Gilsonite	Pigments	Salt Cake
Adipic Acid	Copper, Powdered	Gypsum	Plastic Pellets	Silica Flour
Alumina	Calcium Chloride	Hydrol	Polyester Pellets	Silicone Powders
Aluminum Oxide	Carbon Powder	Iron Oxide	Polymers	Soda Ash
Ammonium Nitrate	Cellulose Powder	Lime	Potash	Sodium Bicarbonate
Antimony Oxide	Diatomaceous Earth	Limestone Dust	Pumice	Sodium Sulfate
Antomite	Dolomite	Magnesium Sulfate	PVC Pellets	Urea
Borax	Feldspar	Metal Powders	PVC Powder	Whiting
Cab-O-Sil	Ferrite Powder	Nylon	Quartz Dust	Zinc Oxide



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