

PNEUTRANS SYSTEMS LTD

A family member of **Thorne Group Technologies**

P.O. Box 163, Aurora, Ontario, Canada L4G 3H3

Tel: 416.391.3408 / 1.800.461.6180

Fax: 416.391.2424

www.thornegrouptech.com
sales@thornegrouptech.com

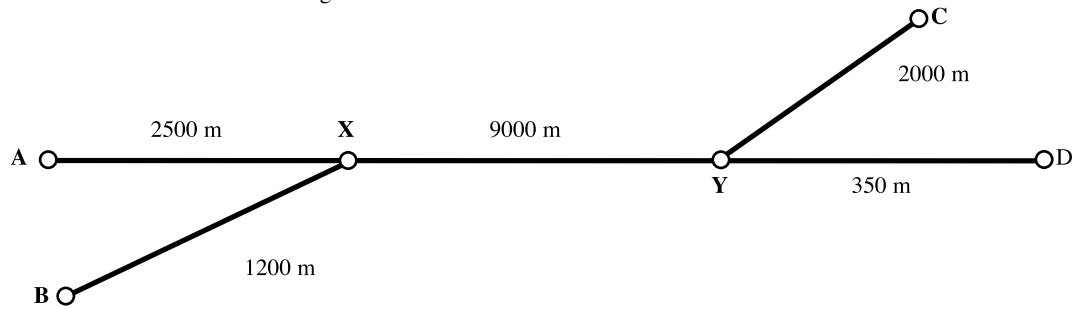
QUESTIONNAIRE OVERVIEW

Think of a Pneumatic Capsule Pipeline transportation system as a cross between a pipeline and a railway. Material can be picked up at one or several points and likewise can be deposited at one or several points. Two-way traffic is possible and very practical. Various materials can be transported simultaneously in the same and/or opposite directions. These materials can have different bulk densities and granulations.

For example: 1. Ore is transported from the Mine to the Mill. Tailings/backfills are returned.
2. Several concentrates are transported from the Mill to a load out. Coal is returned.

It is important to note that no distance is too far or long for our systems.

When you have such applications, make several photocopies of the questionnaire. Mark them A, B, C, etc. Draw a simple map similar to the one below and designate:



Service Required - carrying product

A transports to D
D transports to A
C transports to B

Geography - Pipeline Path

A to X -- Up 50 m
B to X -- Down 25 m
X to Y -- Down 90 m
Y to C -- Up 70 m
Y to D - Down 60 m

Leave the details on how it is done to Pneutrans. We will work out the details, input the information into our computer then send you the information and a detailed printout.

The printout describes:

1. The system design
2. Input data that you provided
3. System technical data
4. Capital costs
5. Annual operating costs. Cost per ton/mile and tonne/kilometer
6. Annual write-off costs. Cost per ton/mile and tonne/kilometer

See the Questionnaire on Page 2. Fill in the details for each material to be transported.

PNEUTRANS SYSTEMS LTD

A family member of **Thorne Group Technologies**
P.O. Box 163, Aurora, Ontario, Canada L4G 3H3

Tel: 416.391.3408 / 1.800.461.6180

Fax: 416.391.2424
www.thornegrouptech.com
sales@thornegrouptech.com

QUESTIONNAIRE

The following information is required to design and cost your transportation needs using a Pneumatic Capsule Pipeline. Please use another page if necessary to provide full details.

1. Your Name and Contact Information _____
Name: _____
Company: _____
Address: _____
Email: _____ Postal Code/Zip Code: _____
Telephone: _____ Fax: _____

2. Name a material to be transported: _____

Bulk Density: _____ Angle of Repose: _____ Degrees
Units of Measurement: _____
Particle Size: _____
Units of Measurement: _____
Show degree on the following: (1) Excellent - no problems - ever; to (9) Very bad to impossible - always
Free flowing () Corrosive () Abrasive () Hygroscopic () Explosive ()

Moisture content scale (1) dry to (9) liquid _____ Percent (%) Describe: Dry free flowing to Sticky thick paste etc _____
Describe
Tailings returned by systems to starting point? (Yes / No) _____ Describe _____

3. A. Material flow rate: _____ Time Period: _____
Units of Measurement Units of Measurement
B. Number of shifts _____ Hours per shift _____
C. Working days per year, allowing for vacation and maintenance _____ days

4. A. From location (mainly) _____ To location _____
Horizontal distance _____ Vertical distance _____
Units of Measurement Units of Measurement
B. Altitude at starting point of system: _____
Units of Measurement above or below Sea Level:
Altitude at ending point of system _____
Units of Measurement above or below Sea Level
Altitude at highest point of system _____
Units of Measurement above or below Sea Level:
Altitude at lowest point of system _____
Units of Measurement above or below Sea Level:

C. The system should be run: _____ Units of Measure underground at a depth of _____
Units of Measurement
The system should be run: _____ Units of Measure on the ground _____
The system should be run: _____ Units of Measure overhead at a height of _____
Units of Measurement

Under water pipe is not recommended due to tremendous buoyancy

D. Topography/terrain. Provide a profile description, a plan and a side view drawing/sketch of the pipeline route

PNEUTRANS SYSTEMS LTD

A family member of **Thorne Group Technologies**
P.O. Box 163, Aurora, Ontario, Canada L4G 3H3

Tel: 416.391.3408 / 1.800.461.6180

Fax: 416.391.2424

www.thornegrouptech.com
sales@thornegrouptech.com

5. Climate Data:

Temperature: _____ 0 C/F Max: _____ 0 C/F Max

Humidity: _____ % Max: _____ %Min

6. Present System or Proposed Alternative System

Type: _____

Capital Cost: \$ _____ Operating Cost: \$ _____

Maintenance Cost: \$ _____ Energy Cost: \$ _____

Estimated Operating Cost: \$ _____
Units of Measurement

7. Amount of taxes applicable:

Federal: _____ % on (M/L/T) Provincial/State: _____ % on (M/L/T) Municipal _____ % on (M/L/T)

Please advise if tax is applied to **Materials, Labour, &/or Transportation** by underlining the applicable words

8. Power cost: Energy Use \$/kwh _____ Demand rate \$kw _____

9. What are your future plans for this system? _____

Increasing / Same / Decreasing ___ % per _____
Unit of Time

What is this increase/decrease planned? _____

Is the same product to be transported? Yes / No _____ If no, what is the different product? _____

10. What is the current planned life of the mine? _____ years

11. Average Annual Income of Maintenance Staff \$ _____
Overhead for Employee Benefit Plans _____ % included / extra

12. Capital Recovery Time _____ years
Annual Finance Charges for Major Capital Expenditures _____ %

13. In which currency do you want this quote? _____

The following information is required to design and cost your transportation needs using a Pneumatic Capsule Pipeline. Please use another page if necessary to provide full details.

1. Soil Condition Acid / Basic _____ PH Level _____
Ground Condition: Rock or? _____
2. Pipeline Material: _____
Steel (commonly supplied) Fibreglass Plastic
- 3 Recommendation / Preference of Pipe Manufacturer _____
4. Pipeline to be painted Yes / No _____ Preferred Colour _____
5. Maintenance Shop/Building Required Yes/ No _____ Which End (s)? _____
6. Pipeline Sleepers: _____
Concrete / Wood / Plastic

Purchase/Leasing Options

Option 1

- A. Customer to purchase system: Yes / No _____ Customer pays Capital, Interest and Operating Cost: Yes / No _____
- B. Customer to Lease Purchase System Yes / No. _____ Customer pays Lease for _____ years, then pays _____ % Buy Back Charges plus operating costs.
- C. Customer pays Lease for life of system Yes / No. _____ Plus operating costs Yes / No. _____

Important Note - For Quote

Option 1

Quotes are extensive and intensive in detail.
There maybe charge for the first quote. Subsequent quotes will be charged for.

Option 2

The system is supplied and installed at customer’s jobsite at little or no capital cost. There will be a contract guarantying specific annual tonnages to be handled and guarantying a specific number of years of service.

Annual Tonnages _____
Specific Number of Years _____

- A. Customer pays by the ton/mile Yes / No _____
Tonne/kilometer

The **customer provides** the maintenance staff, maintenance parts and all services such as compressed air to operate small devices and system power.

- B. Customer pays by the ton/mile Yes / No _____
Tonne/kilometer

Pneutrans Systems Limited provides the maintenance staff, maintenance parts and all services such as compressed air to operate small devices and system power.

- C. Customer pays (customer to provide the details)

For Options 2A, 2B or 2C

Will the Contract be renewed 'as is' Yes / No _____

Important Note

Option 2 Pneutrans Systems Limited must calculate an extensive and detailed quote and may have to source financing. This is expensive in time and money. Therefore, like consulting engineering firms there is a charge for this kind of quote. Please contact Pneutrans Systems Limited for information on Option 2 quote costs. Quotes are different from Option 1.

Customers Notes/Comments/Sketches/Pictures

Return to: **PNEUTRANS SYSTEMS LTD**

P.O. Box 163, Aurora, ON Canada L4G 3H3

Ph.: 416.391.3408 Fax: 416.391.2424

email: sales@thornegrouptech.com www@thornegrouptech.com