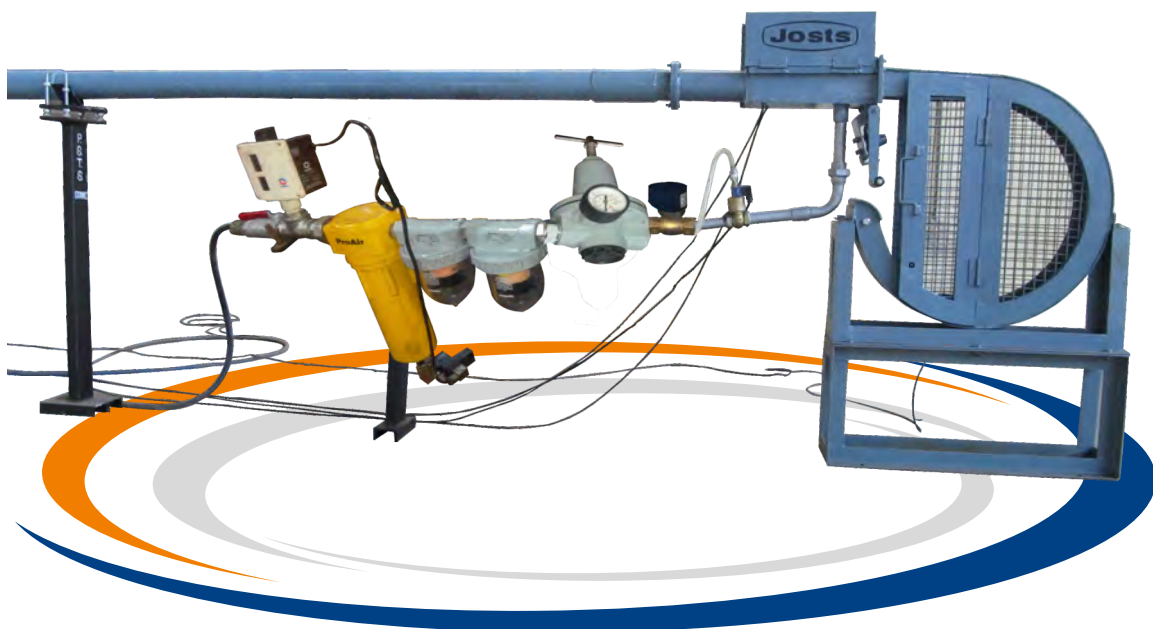


# PNEUMATIC SAMPLE TRANSPORT SYSTEM

## PSTS80



- Single two-way pneumatic tube transport carriers in both direction
- Safety interlocks against double charging, cross charging and accidental door opening
- Lightweight carriers with buffer
- Inspection joints at the regular interval

# PNEUMATIC SAMPLE TRANSPORT SYSTEM

## PSTS80

Even in this era of super-fast electronic communication, there are many areas where instantaneous physical movement of test samples, documents, etc. over long distances requires. For instance, in large steel plants and foundries where tests of samples have to be taken at frequent intervals, time possess the crucial importance. If the furnace locations are far from the spectroscopic laboratory, errand running for samples and reports is impractical as the sample are required to be tested at a very short interval.

Josts Pneumatic sample transport system (PSTS) is an ideal solution for such problems. It minimises transmission time by despatching the sample early. PSTS is perfectly suited for handling solid, powder, granules or flake samples.

Josts is a pioneer in India for designing, manufacturing and supply of such systems. Josts PSTS are already in operation at most of the steel plants. Josts systems, which were popularly known as 'Kerry Josts Systems' are now being manufactured and supplied from thane facility.

Along with large steel plants and foundries, Josts PSTS has application across various industries like Aluminium, Cement etc for transportation of test samples. Large Hospitals, Hotels, Banks, Offices, Airports etc. can also get benefit from these systems for frequent, direct and rapid movement of documents and small items from one department to another and at different floor levels. Josts PSTS saves time and makes document handling automatic.

### Josts Pneumatic Sample Transport System (PSTS 80)

- PSTS 80 is designed to minimise transportation time as it takes only about a minute to transport the samples up to 600 meters.
- Ideally suited for handling solid, liquid, powder, granules or flake samples.
- Economical, efficient, reliable, safe and saves labour.
- Can be used for direct and rapid movement of samples and documents from one department to another located at different buildings and/or at different floor levels.

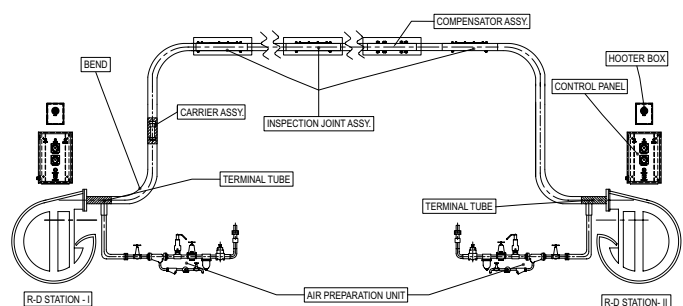
#### Main Features

- Single two-way pneumatic tube transport carriers in both directions.
- No limitations on the length of the systems.
- Chemically treated and weather protected pneumatic tubes for long life.
- Compensator assemblies to take care of thermal expansions for straight lengths over 200mm.
- Safety interlocks to protect from double charging and cross, intentional or accidental door opening.
- Safety interlocks to ensure that the system is re-set only when carrier is removed at destination end.
- Light weight carriers with special long life easily replaceable buffers.
- Visual and audio indication while carrier is in transit mode and also when carrier reaches destination.
- Air preparation assemblies at each end with pressure regulators and safety valve for clean dry air supply.
- Inspection joints at regular intervals to retrieve carriers in case of emergencies.
- Optional dispatch cabin with ventilation and illumination (for housing the receive and dispatch station.)

Typical Pneumatic Sample Transport System Layout In 3D



Typical Pneumatic Sample Transport System Layout



# PNEUMATIC SAMPLE TRANSPORT SYSTEM

## PSTS80

### The System consists of:

- Pneumatic conveying tubes
- Inspection box assemblies
- Combined receiving and despatch station
- Control panel
- Air preparation system
- Sample carriers
- Compensator assembly
- Inspection-cum-clearing cane

### Quality Delivered

Josts has manufactured and supplied over 100 systems with combined length of over 50 Kms all over the country to all major steel plants. The components of PSTS are manufactured from carefully selected materials that are subjected to rigorous quality checking. The manufacturing process is guided by a well laid out 'Quality Assurance Plan' and the final components are subjected to both individual and combination checking

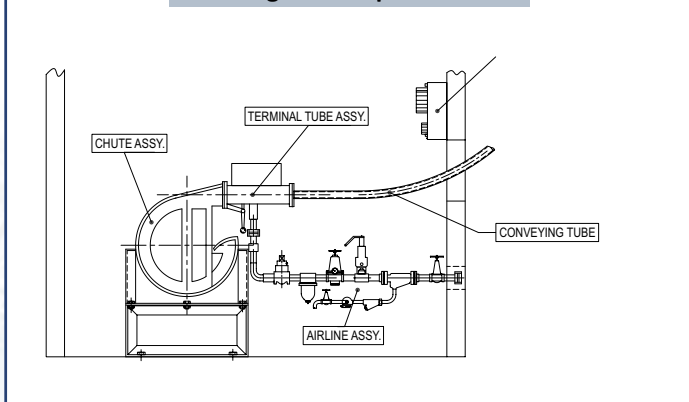
### Erection and Commissioning:

This is a highly specialised work and Josts has trained engineers for this purpose. The work involves careful alignment and welding of tubes and bends at different height levels. This ensures constant and smooth internal diameter throughout the conveying route and it further facilitate high speed travel of carriers. This requires regular and continuous checking. The various other components also need to be carefully installed and integrated for smooth functioning of the system.

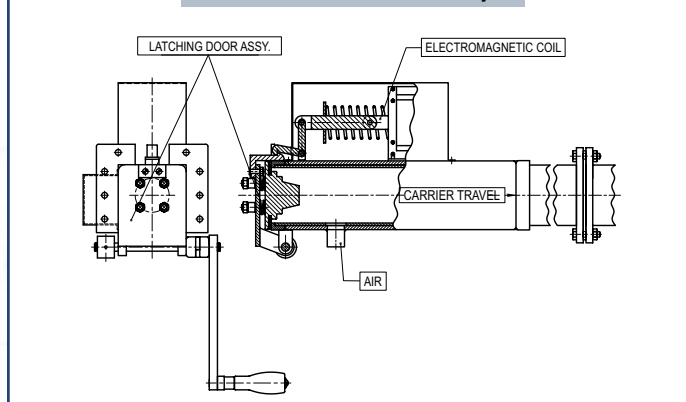
### Testing of PSTS

Besides well laid out testing procedures of various components during manufacturing, Josts also follows well defined testing procedure at site. Jost's engineers carry out static and dynamic functional testing followed by operational testing, before offering the system to the customer for performance test.

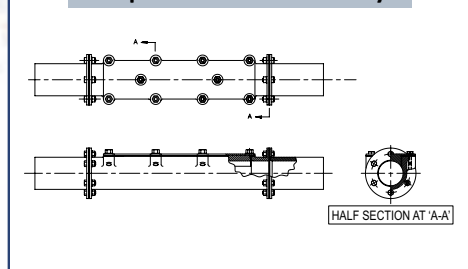
Receiving and Despatch Station



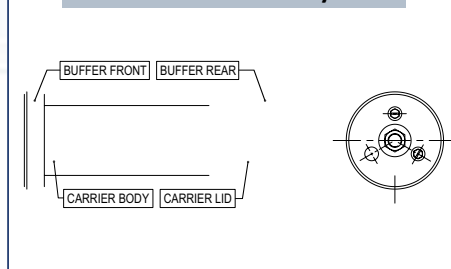
Terminal Tube Assembly



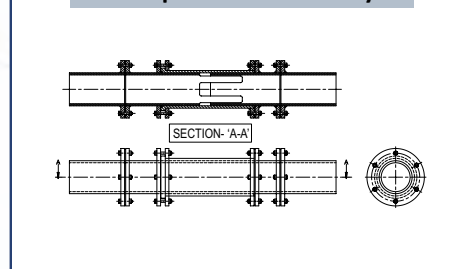
Inspection Joint Assembly



Carrier Assembly



Compensator Assembly



# PNEUMATIC SAMPLE TRANSPORT SYSTEM

## PSTS80

### Technical Specification

#### Technical Data

Tube Size	NB	80
Bend radius Min.	mm	1400
Insp.joint interval	Mts	24-30
Carrier diameter	mm	76
Carrier length	mm	150
Carrier speed	Mts./Sec.	8-10
Max.sample size	φX L mm	φ40X80
Max. sample weight	gm	800
Air pressure	Kg/Cm <sup>2</sup>	5-6
Power supply	Single Ph.	220V AC

#### Customer Details Required

Over all length	Meters
Number of 90°bends.	Nos.
Number of 45°bends	Nos.
Max. elevation of tubes	Meters
No. of transfers per hour	Nos./hr
Sample size	φXL
Sample weight	gm
Carriers required	Nos.
No. of inspection joints	Nos.
Despatch cabin required	Yes/No
Shop layout drawing with dimensions	

Josts engineers can visit and discuss with the users to understand their exact requirements, conduct site survey and offer proper guidance for route determination.

### Applications

- **Large steel plants and foundries-** Transfer of various samples and reports
- **Metallurgical industry (Aluminium)-** Transfer of hot samples, powders to laboratory in large plants.
- **Cement plants-** Transfer of cement samples to testing laboratory in large cement plants.
- **Pharmaceuticals-** Transfer of sterile samples to laboratories.
- **Hospital-** Hospital- Transfer of medial/pathology samples, emergency samples, reports in large hospitals.
- **Retail-** Transfer of cash from remote collection points to secured centralised locations for processing.
- **Airports maintenance /workshops-** Spare parts transfer from stores to shop



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#### Jost's Engineering Company Limited

C-7 Wagle Industrial Estate, Road No. 12, Thane - 400 604. Maharashtra. INDIA.  
T.: +91.22.6267.4000 E.: jostfact@josts.in w.: www.josts.com

Bengaluru : +91-080-4123-4775 / 4123-4885 Chennai : +91-044-2626-8536 / 2628-8407 Delhi : +91-011-4160 7989 Kolkata : +91-033-2242-9510 / 4008-1242  
Pune : +91-020-2543-4565 / 2543-4390 Secunderabad : +91-040-2771-4934 / 44 / 54 Vadodara : +91-0265-2351-642

Dial-a-care: 18002745661