

# SWISSLOG SPECIFICATIONS



# TRANSMISSION COMPONENTS FOR TRANSLOGIC PNEUMATIC TUBE SYSTEMS

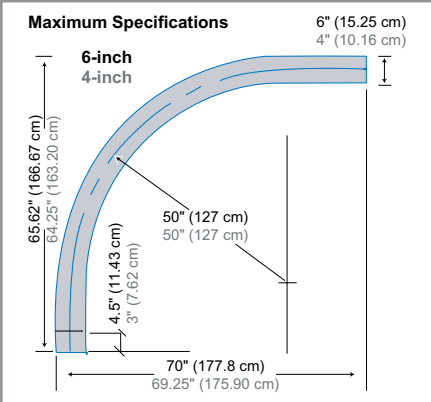
Swisslog's TransLogic pneumatic tube systems transport carriers using intricate paths of galvanized steel tubing hidden behind walls and above the ceilings in hospitals and between buildings. Blower units provide air pressure and vacuum to move the carriers to their destination, while transfer units direct carriers to the correct tube paths.

## Galvanized Steel Tubing

Pneumatic tube system (PTS) galvanized steel tubing consists of straight tubing, bends, couplings and assorted fittings used to construct the carrier distribution network. Tubing and bends are 16-gauge galvanized steel, available in 4-inch O.D. and 6-inch O.D.

### Bends

Partial bends and 90 degree bends are used to change the direction of tubing.



## Joint Components

Three types of joints are used throughout the tubing network: the expanded-end joint, drive sleeve and bolted coupling.

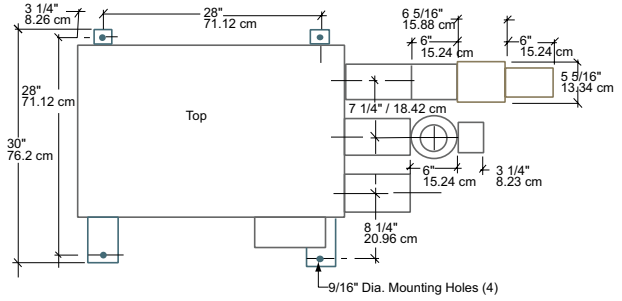
The standard joint is a slip socket type. The tubing expanded-ends have a patented design that provides the smoothest possible transition for a carrier and minimizes noise and carrier wear.

Cut tubing ends are joined with either a drive sleeve or a bolted coupling. Joints at major components (stations and transfer units) are usually made with a bolted coupling.

## Tube Hangers

Tube hangers are used to suspend pneumatic tubing from the structure. Both tear drop hangers and strut support hangers mount to 1-5/8" channel.

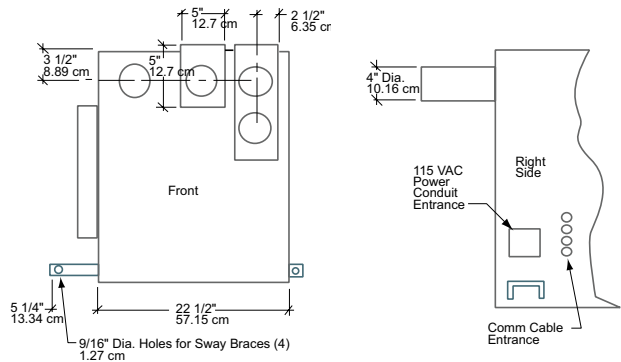
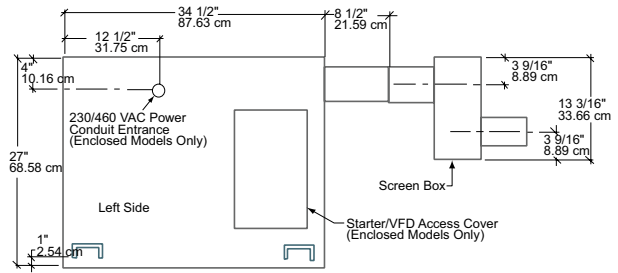




## Blower Unit

The blower unit provides vacuum and pressure to move carriers at consistent speeds regardless of payload or proximity to the blower. The unit consists of a heavy-duty regenerative blower motor rated for continuous duty and a shifter valve mechanism used to connect either vacuum or pressure to the system piping as required. Blowers are offered in both 4 and 6 inch versions and can also be optionally equipped with a variable frequency drive (VFD). VFD equipped models provide software control of the blower speed enabling transport of sensitive items at slower speeds and empty carriers at faster speeds.

The blower unit is an open-frame design and is suitable for installation in areas such as mechanical equipment rooms. A sound attenuated model completely enclosed in a sheet metal housing with sound absorbing lining and equipped with mufflers is also available. The sound attenuated version permits installation near occupied areas. Both models use blower motor isolation mounts, insulating vibrations from the structure. To conserve energy, the blower is automatically turned off during periods of inactivity.



## Specifications

**Blower Type:** Regenerative

### Power Requirements:

Shifter Valve Motor: 105-125 VAC, 60 Hz, 1 Phase, 5.4 A  
Blower Motor: 200-230, 460 VAC, 50/60 Hz, 3 Phase

Horsepower*	200-230 VAC	460 VAC
4-inch	4.2-4.5	4.5
6-inch	8.7-10	10

### Full Load Amperage\*

4-inch	12-11	5.5
6-inch	26-23	11.5

\*Size all circuit protection in accordance with local, state, and national electrical codes.

Max. vacuum/pressure at 5000 ft / 1.5 km: 3.5 psig

Max. output at zero pressure and 500 ft / 152.4 m:

165 SCFM for 4-inch / 330 SCFM for 6-inch

### Environmental Requirements:

Temperature Operating 0° to 120° F (5° to 49° C)

Storage Temperature -20° to 180° F (29° to 82° C)

Relative Humidity 0 to 90%

Maximum Operating RPM 3500

	4-inch	6-inch
Open frame	240 lbs/109 kg	395 lbs/179 kg
Open frame (w/VFD)	250 lbs/113 kg	405 lbs/184 kg
Sound Attenuated	375 lbs/170 kg	530 lbs/240 kg
Sound Attenuated (w/VFD)	385 lbs/175 kg	540 lbs/245 kg
Heat output (approximately)	9000 BTU/hr	8000 BTU/hr
Sound levels		
In open area (open frame)	75 dbA	82 dbA
In open area (attenuated)	61 dbA	72 dbA
Mounted above ceiling**	51-55 dbA	61-66 dbA

\*\*Attenuated model only - sound measurement 3 feet below ceiling

### Control Requirements:

4 conductor cable, #22 AWG stranded, 5 VDC maximum open circuit voltage, 200 mA maximum short circuit current

# Transfer Unit

The transfer unit is a switching device used at branching points in the system to direct the path of a carrier from a single pipe at one end to any one of two, four, or six selectable pipes at the other end. An optical sensor is contained within each unit to detect the passage of a carrier. A moveable tube gently guides the carrier through the unit in either direction. The tube is positioned precisely at the selected port by a magnetic proximity sensor.

The entire transfer unit is enclosed in a rigid metal box frame with removable side covers for service. The simple design and heavy-duty construction provide very high reliability. Diagnostic features such as a built-in port alignment gauge, and diagnostic switches and indicators on the control assembly simplify maintenance. A port cap is used to cover an unused line from a transfer unit.



## Specifications

**Drive Mechanism:** Electromechanical

**Environmental Requirements:**

Temperature Operating: 0° to 120° F  
(5° to 49° C)

**Power Requirements:**

105 to 125 VAC, 60 Hz, Single Phase, 3A

Storage Temperature: -20° to 180° F  
(29° to 82° C)

**Control Requirements:**

4 conductor cable, #22 AWG stranded,  
5 VDC maximum open circuit voltage,  
200 mA maximum short circuit current

Relative Humidity: 0 to 90%

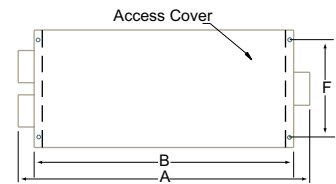
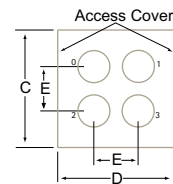
Max. System Vacuum/Pressure: 4 psig

Positioning Time: Typically 2 sec.

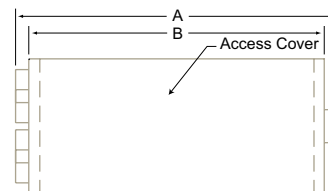
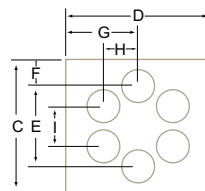
(3 sec. max)

Heat Output: Approx. 130 BTU/hr

## 1x4

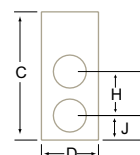
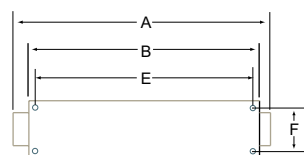


System	Weight	A	B	C	D	E	F
4-inch	145 lbs	50 1/2"	44 3/4"	18"	18"	6 5/8"	13 5/8"
	65.7 kg	128.3 cm	113.7 cm	45.7 cm	45.7 cm	16.5 cm	34.9 cm
6-inch	185 lbs	52 7/8"	47 1/4"	21 1/2"	21 1/2"	8"	17"
	83.9 kg	134.4 cm	120 cm	54.6 cm	54.61 cm	20.3 cm	43.2 cm
6-inch Mini	95 lbs	44"	34 3/4"	18 7/8"	18 7/8"	8"	13"
	43.1 kg	111.8 cm	88.3 cm	48 cm	48 cm	20.3 cm	33 cm



## 1x6

System	Weight	A	B	C	D	E	F	G	H	I
4-inch	205 lbs	53 3/4"	48 3/4"	19 3/4"	20 11/16"	10 11/16"	4 5/16"	10 5/16"	4 5/8"	5 5/16"
	93.0 kg	136.5 cm	123.8 cm	50.2 cm	52.8 cm	27.4 cm	11.4 cm	26.0 cm	11.5 cm	13.9 cm
6-inch	250 lbs	58 7/8"	53 11/16"	24 1/2"	26 5/8"	14 5/8"	4 15/16"	13 1/8"	6 5/16"	7 5/8"
	113.4 kg	149.4 cm	136.5 cm	62.2 cm	67.6 cm	37.2 cm	12.7 cm	33.3 cm	15.9 cm	19.3 cm



## 1x2

System	Weight	A	B	C	D	E	F	G	H	J	K
4-inch	125 lbs	43"	38"	18 1/2"	8"	36 1/4"	5 5/8"	16"	5 1/2"	3 3/4"	12"
	56.7 kg	109.2 cm	96.5 cm	47.0 cm	20.3 cm	92.0 cm	14.0 cm	40.6 cm	14.0 cm	9.5 cm	30.5 cm
6-inch	165 lbs	47"	42"	23 1/2"	10 1/2"	40 1/4"	7 5/8"	21"	8"	4 1/2"	15"
	74.8 kg	119.4 cm	106.7 cm	59.7 cm	26.7 cm	102.2 cm	19.0 cm	53.3 cm	20.3 cm	11.4 cm	38.1 cm

## Pneumatic Tube System Accessories



### Remote Arrival Indicators

The remote arrival indicator (RAI) notifies users that a carrier has arrived by flashing a yellow light and/or by sounding a chime. Both the light and chime are turned off by pressing the reset button on the indicator. The RAI can be installed adjacent to a station or in a remote location.

#### Remote Personal Indicators

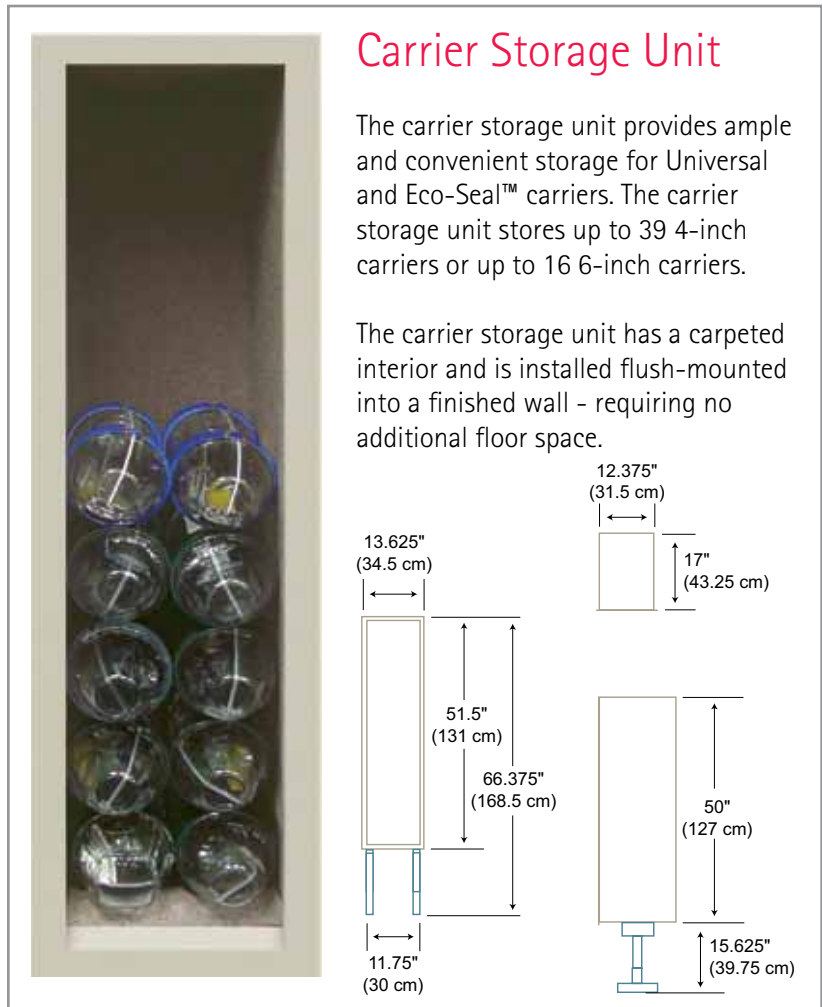
Indicators can also be configured as virtual stations called remote personal indicators.

A remote personal indicator acts as a virtual station and has its own system address. These will light/sound only when a carrier is directed to the specific address assigned to the indicator. This allows multiple groups of users to effectively share a single PTS station. Remote personal indicators may be installed adjacent to the station or at a remote location. Up to six unique personal indicator addresses may be assigned to each PTS station.

### Carrier Storage Unit

The carrier storage unit provides ample and convenient storage for Universal and Eco-Seal™ carriers. The carrier storage unit stores up to 39 4-inch carriers or up to 16 6-inch carriers.

The carrier storage unit has a carpeted interior and is installed flush-mounted into a finished wall - requiring no additional floor space.



### For More Information in North America:

Swisslog Healthcare Solutions  
 Email: [healthcare@swisslog.com](mailto:healthcare@swisslog.com)  
 USA: 800.764.0300  
 Canada: 877.294-2831 | 905.629.2400



[WWW.SWISSLOG.COM](http://WWW.SWISSLOG.COM)