

Models PS/IPS

Stainless Steel Double Wall
Positive Pressure Piping Systems



Selkirk® Models PS and IPS are modular, prefabricated piping systems which embody flanged joints designed for both quick assembly and pressure-sealing capabilities.

FEATURES

- *PS/IPS Boiler Breeching*
- *Chimney Stack*
- *Engine Exhaust*
- *PS/IPS Grease Duct*
- *Food Service Venting*



PRODUCT IDENTIFICATION

Model PS vs. Model IPS



Ceramic Fiber insulation increases the diameter of the outer wall on Models IPS-C2, IPS-Z3, IPS-C4 and IPS-Z4 pipe and fittings. Shown in this sequence is the same 8-inch diameter inner pipe. (Photo 1) Without insulation the outside diameter of the pipe is 10-inches. (Photo 2) This is also true of the same pipe with a 1-inch layer of insulation. (Photo 3) However, the same 8-inch pipe with 2-inch insulation results in an outside diameter of 12 inches. (Photo 4) Adding 3 inches of Ceramic Fiber insulation to the same 8-inch pipe makes the diameter of the outer wall 14 inches. (Photos 5 & 6) Adding 4 inches of Ceramic Fiber insulation makes the diameter of the outer wall 16 inches.

Understanding Product Codes and Part Numbers

All parts manufactured by Selkirk are identified by a series of numbers and letters which describe their makeup and function.

Here is how to interpret the Part Number designation for Model PS and IPS products.

1. It begins with the pipe or fitting's internal diameter (in inches) such as 8, 22, 36, etc.
2. This is followed by the model designation, P for air-insulated (Model PS), or IP for parts that are fiber insulated (Models IPSC1, C2, Z3,C4, or Z4).
3. Next is the product's material designation, such as 316 or 304/304. The first item indicates the makeup of the inner liner, while the second half indicates the material content of the outer wall, if stainless. If aluminized outer, the part number indicates inner material only.
4. Then, following a long dash, the product's codename is listed, such as AG30, JY, or MVT. If the product is air insulated, the product identification ends with this code.
(For product code listings, refer to page 4 Submittal Book SBP0806.)
5. Finally, when a product is fiber insulated, a designation is added at the end to indicate insulation thickness. C1 means a thickness of 1-inch; C2, 2-inches; Z3, 3-inches; Z4/C4-4 inches.
(For comparison, see photos above.)

Thus, the ordered part number for a 30-inch adjustable pipe, with a 6-inch I.D., made of 304 stainless steel inner and aluminized steel outer, packed with 2-inch Ceramic Fiber insulation, is listed:

6IP304- AG30C2*

* **Note:** For products with reduction or increaser parts, the part number changes as follows:

MT and JL - Diameter of body listed in front of Models P or IP
Diameter of snout listed in front of code designation

Example - For a manifold tee with a 42" dia. body and 30" dia. snout:

42P304-30MT

OT and OS - Smaller diameter listed first (before Model designation)
Larger diameter listed before code designation

Example - For a tapered increaser with an 8" to 16" dia. body:

8P304-16OT

SYSTEM CONCEPT

Selkirk Model PS and IPS are modular, prefabricated piping systems which embody flanged joints designed for both quick assembly and pressure-sealing capabilities. They offer a combination of insulated piping components as well as the structural accessories needed for support and attachment to building structures. Expansion joints are available both in gasket designs and in pressure tight, all-welded bellows designs.

Standard gas-carrying piping parts are usable for a wide variety of applications:

- Chimneys and stacks for all types of building heating equipment.
- Chimneys for industrial ovens, furnaces, and processing equipment.
- Exhaust piping for engines or turbine units.
- Ducting in restaurants for compliance with Type 1 hood requirements.
- Ducting for heated air and combustion products.
- Ducting for light duty pollution control equipment.
- Venting for engine exhaust and other shipboard systems.
- Venting for offshore drilling rigs.

Complete Line of Fittings

Model PS and IPS are available in eighteen sizes, from 5" I.D. to 48" I.D. Fittings include various elbows, tees, supports and terminations, as well as a variety of accessory fittings designed to make installation simple and quick.

Each component is shipped complete and ready for installation. Each ordered part includes Inner Vee Bands, Outer Channel Bands and all the necessary hardware.

All items included with each order are listed in this catalog under the part description.

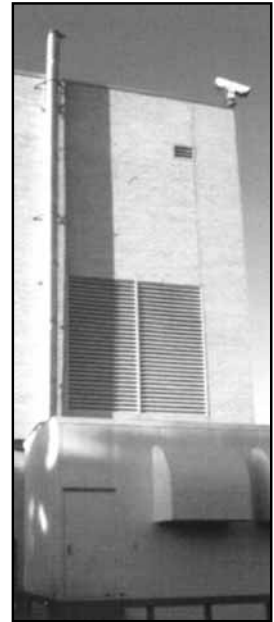


Exceeding the Requirements

Selkirk, inventors of the positive pressure system concept, far exceeds the requirements of codes and other manufacturers. Results of our testing programs illustrate this fact.

Leak Tests

Selkirk conducted system pressure testing (to 60" w.c.) against leakage in the presence of UL inspectors, and results of these tests are impressive. Using the OSHA occupation standard-of-leakage rate of 50 parts per million over an eight hour period as criterion for acceptance, Selkirk was tested to a leakage rate of only .144 parts per million, or three-tenths of one percent (.3%) of the maximum allowable leakage rate per UL103 test standard.



Seismic Tests

We further demonstrated the superiority of the Model PS and IPS concept by conducting seismic load tests. These tests proved the structural integrity of our products under severe stress by showing that a guyed stack measuring 20 inches in diameter and exceeding 10 feet above the guying location (installed in strict accordance with the UL103 Listing) could withstand the rigors of all Seismic Zones.

Structural Tests

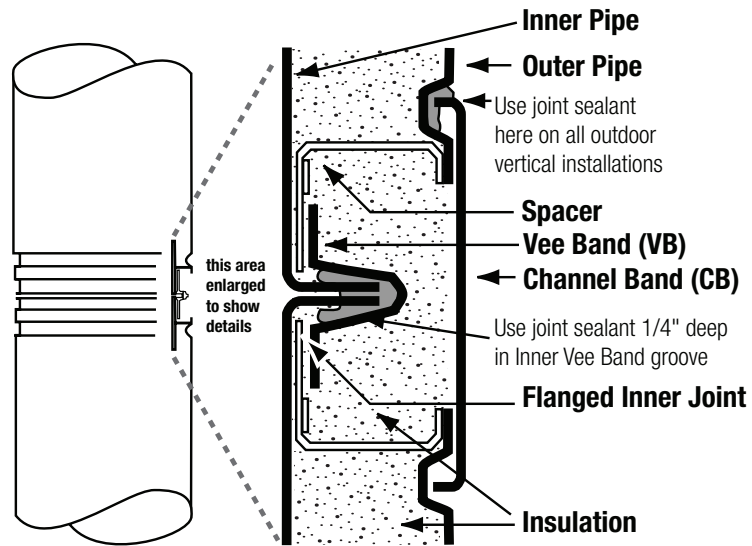
Selkirk recently tested for greater freestanding limits (termination height above a guide point). These tests, simulating stack performance under 110 mph wind conditions, again demonstrated the superiority of Selkirk products.



Skin Temperature Rise Tests

Among other things, UL103 covers the temperature rise limits of the surrounding combustible materials in an unenclosed chimney installation and it defines the test set-up to measure the actual temperature rise of those materials at the OEM recommended clearances. Our published Model IPS skin temperatures were obtained during these tests.

JOINT ASSEMBLY PARTS



*Illustrations shown are for reference only. See Installation Instructions for detailed sealant application and use



Step 1

Fill inner vee band (VB) with proper sealant.



Step 2

Position inner VB below flange of pipe or fitting.



Step 3

Mate flanges of two pipes. Position inner VB over both flanges and tighten.



Step 4

Position outer channel band around outer casing. Align with pipe grooves and tighten.

TECHNICAL DATA

Criteria	Type L Vent	Restaurant Grease Duct (1)	Building Heating Appliance Chimney (1), (2)	1400° F. Factory-Built Chimney (1)
Application	Chimneys and stacks for appliances Listed suitable for venting with Type L or Type B venting systems.	Cooking Appliances Ventilation Hoods Restaurant Grease Ducts Pizza Oven Exhausts	Low and High Pressure Steam Boilers Diesel and Turbine Exhausts Building Heating Equipment	Industrial Furnaces Processing Equipment Kilns and Ovens Diesel and Turbine Exhausts
Maximum Operating Temperatures	550° F Continuous 1700° F. Intermittent	500° F. Continuous 2000° F. Intermittent	1000° F. Continuous 1400° F. Intermittent	1400° F. Continuous 1800° F. Intermittent
Clearances To Combustibles: Model PS	N.A.	5-10" I.D. = 5" 12" I.D. = 6" 14" I.D. = 7" 16" I.D. = 8" 18" I.D. = 9" 20" I.D. = 10" Over 20" I. D. = **	5-16" I.D. = 6" 18-20" I.D. = 7" 22-26" I.D. = 8" 28-30" I.D. = 9" 32-36" I.D. = 10" 42" I.D. = 11" 48" I.D. = 12"	5-16" I.D. = 6" 18" I.D. = 8" 20" I.D. = 9" 22" I.D. = 10" 24" I.D. = 12" 26" I.D. = 13" 28" I.D. = 14" 30" I.D. = 16" Over 30" I.D. = **
Model IPSC1	5-24" I.D. = 3"	5-6" I.D. = 2" 8-16" I.D. = 3" 18-24" I.D. = 4" 26-32" I.D. = 5" 36" I.D. = 6" 42-48" I.D. = 7"	5-8" I.D. = 1" 10-16" I.D. = 2" 18-24" I.D. = 3" 26-32" I.D. = 4" 36" I.D. = 5" 42-48" I.D. = 6"	5-6" I.D. = 1" 8-16" I.D. = 2" 18-24" I.D. = 3" 26-32" I.D. = 4" 36" I.D. = 5" 42-48" I.D. = 6"
Models IPS Z3 & Z4	Not Listed	5"-36" I.D. = 0"	Not Listed	Not Listed
Models IPS C2 & C4	5-24" I.D. = 2"	5-16" I.D. = 1" 18-20" I.D. = 2" 22-24" I.D. = 3" 26-32" I.D. = 4" 36" I.D. = 5" 42-48" I.D. = 6"	5-16" I.D. = .5" 18" I.D. = 1" 20" I.D. = 1.5" 22-24" I.D. = 2" 26-32" I.D. = 3" 36" I.D. = 4" 42-48" I.D. = 5"	5-16" I.D. = .5" 18-24" I.D. = 2" 26-32" I.D. = 3" 36" I.D. = 4" 42-48" I.D. = 5"
Clearance to non-combustibles - as required for installation, access for inspection or per local code.				

1. Enclosure - Grease Ducts, Building Heating Appliance Chimneys and 1400°F Chimneys are intended for use unenclosed or enclosed in an appropriate non-combustible chase.

2. Under the "Building Heating Appliance Chimney" Listing, 5" through 24" Model IPS has qualified for UL's additional, optional "Type HT" rating for chimneys for certain appliance venting applications especially solid fuel.

** See Installation Instruction Manual

WARRANTY STATEMENTS

15&1 COMMERCIAL/INDUSTRIAL WARRANTY

Standard 1-Year Warranty

Selkirk Corporation warrants the chimney and engine exhaust system and components against functional failure due to defects in material and workmanship for a period of one year from date of delivery to the construction site. Functional failure is defined as any failure of the system or component to perform its intended function of exhausting, without adverse leakage, combustion by-products from engine operation or heating equipment. During this period, any system or component supplied by Selkirk failing to perform its intended function will be repaired or replaced at the manufacturer's option, following determination by a factory-authorized inspector that a functional failure has occurred. This warranty is limited to repair or replacement of the product plus shipping cost to the failure location. This warranty does not cover any labor costs for removal or replacement of the defective product, nor does this warranty cover any system components not furnished by Selkirk and installed as part of the system.

This limited warranty is extended to the purchaser subject to the satisfaction of the following conditions:

- 1) Generally accepted engineering practices have been followed to determine that sizing and material specifications are suitable for the application and environment involved.
- 2) The undamaged components have been correctly installed in accordance with the installation instructions published by Selkirk at the time of shipment.
- 3) Damage is not a result of burning garbage, waste oil, #6 oil or any other prohibitive material in the appliance served by the venting system.

Extended 15-Year Warranty

This limited warranty is extended to the purchaser for fifteen years, subject to the satisfaction of the following conditions:

- 1) System sizing and design has been performed by Selkirk personnel, and design parameters provided to Selkirk by the responsible engineer were and are accurately representative of the operating conditions.
- 2) The undamaged components have been correctly installed in accordance with system design and sizing as performed by Selkirk and installation instructions published by Selkirk at the time of shipment.
- 3) Proper precautions have been taken to insure that boiler or engine combustion air is free of solvent or refrigerant vapors or any halogenated compound which may cause acid condensates to form within the chimney.
- 4) Damage is not a result of burning garbage, waste oil, #6 oil or any other prohibitive material in the appliance served by the venting system.
- 5) Selkirk has supplied the entire chimney or exhaust system from boiler/engine outlet to the termination of the stack.
- 6) Prior to start-up and thereafter, exposed aluminized steel surfaces are protected with a minimum of one base coat of primer and one finish coat of heat-resistant and corrosive-resistant paint at all times. Stainless steel surfaces need not be primed or painted.

The Selkirk 15&1 Warranty applies to the following products: DF, DFS, G, ICA, IPS, PS, QC used in Commercial/Industrial/Institutional applications

LIMITED LIFETIME WARRANTY FOR GREASE DUCT APPLICATIONS

Selkirk Corporation ("Selkirk Corp.", "Selkirk", "we", "us", "our") warrants to the original owner that Model: G, PS, IPS, Z3 and Zero Clear products installed in a grease duct application, are to be free from defects in material and workmanship for the life of the product when properly connected to and included as a part of a code compliant commercial kitchen ventilation system for cooking appliances and installed in accordance with our installation instructions and specifications.

- For products installed after January 1, 2008, for a period of Ten (10) years from original installation, we will provide replacement product to the original owner for the product proven defective with a similar or like quantity of available Selkirk Corp. product, free of charge.
- From the Eleventh (11) through Fifteenth (15) years we will provide replacement product to the original owner at a cost of 75% off of the Manufacturers Suggested List Price in effect on the date the claim is received.
- At expiration of the Fifteen (15) year term, we will provide replacement product to the original owner at a cost of 50% off of the Manufacturers Suggested List Price in effect on the date the claim is received.

WARNING: FAILURE TO INSTALL SELKIRK PRODUCTS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WILL VOID ALL APPLICABLE WARRANTIES AND MAY RESULT IN FIRE, LOSS OF PROPERTY OR LIFE AND MAY VOID INSURANCE COVERAGE. SEE OUR SELKIRK CORP. GREASE DUCT INSTALLATION INSTRUCTIONS FOR COMPLETE INSTRUCTIONS. Call 1.800.848.2149 or visit our website at www.selkirkcorp.com for a free copy. WE DO NOT GUARANTEE OR IN ANY WAY WARRANT THE INSTALLATION OF SELKIRK PRODUCTS DUE TO THE WIDE VARIANCE IN INSTALLATION PRACTICES AND OTHER CONDITIONS BEYOND OUR CONTROL. THIS LIMITED WARRANTY DOES NOT COVER:

- (a) costs (labor or otherwise) associated with either removing a previously installed product, installing a replacement product, transportation or return of a product, or transportation of replacement product;
- (b) damage to the finish of products caused by the use of improper solvents/chemicals or improper cleaning methods;
- (c) damage resulting from failure to reasonably clean, care for or maintain products in accordance with our installation instructions/recommendations;
- (d) damage (to products, appliances or structure) based on or resulting from improper installation or repair, misuse or abuse (including, but not limited to, excessive or improper operating condition), or alteration or adjustments other than in conformity with our installation instructions and specifications, whether performed by a contractor, service company, technician, or yourself;
- (e) any products that have been moved from their original installation site;
- (f) damage to your grease duct that results from accidents such as fire, flood, high winds, "acts of God", or any other contingency beyond our control.
- (g) replacement of system sealants as a result of improper installation or a system grease fire.

Disclaimer:

Selkirk assumes no liability for incidental or consequential damages of any kind or for any damages resulting in whole or in part from misuse, improper installation, or inadequate maintenance of the system or any component part thereof. This warranty is in lieu of all other express warranties or guarantees of any kind. All implied warranties, including merchantability and fitness, are limited to the duration of the express warranty contained herein. Selkirk neither assumes nor does it authorize any other person to assume on its behalf any other liability in connection with the sale of its products.

CLAIM PROCEDURE:

If you believe that a product fails to meet the above limited warranty, notify us in writing at: SELKIRK CORPORATION, Attn: WARRANTY CLAIMS DEPARTMENT
5030 Corporate Exchange Blvd SE., Grand Rapids, MI 49512. Phone 1.800.848.2149

Notification should include a description of the product, model and part number and how the product fails to meet the above warranty. Upon receipt of a written claim under this limited warranty and evidence of the date of purchase or installation, at our option and in our sole discretion, we will either repair or replace the product with similar or like quantity of available Selkirk Corp. product per this warranty. Selkirk Corp. reserves the right to inspect or investigate any warranty claims prior to determining whether to repair or replace a product. If, as determined by Selkirk Corp, repair or replacement of the product is not commercially practicable or cannot be completed in a timely manner, we may refund the prorated purchase price paid for the product upon verification by providing a copy of your invoice, receipt of bill of sale. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED IN DURATION TO THE WARRANTY PERIOD SPECIFIED ABOVE. WE DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES AND ANY LOSS OR EXPENSES(S), NOT SPECIFIED ABOVE. SOME STATES MAY NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE LEGAL RIGHTS WHICH VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

When SIZE matters WE BUILD TO SUIT



Models **PS & IPS** are double-wall UL Listed design, factory engineered and built in sizes up to 48" ID. UL tested for positive pressure 60" WC.

ZeroClear™ - Zero clearance grease duct

Model G - Single wall negative, neutral, or positive pressure pre-fab systems

Model QC - Type "B" gas vents

Model DF - Neutral or negative draft and oil vent

Model DFS - Building heating appliance chimney



GET THE SELKIRK ADVANTAGE

Models PS and IPS are manufactured by Selkirk Corporation a leading manufacturer of chimney, venting and air distribution products for the commercial and residential HVAC industries for more than 80 years. Selkirk manufactures products in the United States, Canada and Mexico. For more information, visit the our web site at www.selkirkcorp.com