SNIF™ SHEER P-240Ui In-Line or "U-Flow"

ALUMINIUM REFINING SYSTEM

The SNIF™ SHEER P-240Ui series of four-nozzle systems provide a continuous refining rate of 110,000 kg per hour. The system consists of a refining furnace, four SNIF SHEER spinning nozzles, and PLC automated process and furnace heating controls.

P-240Ui furnaces are divided into four separate and distinct refining chambers, each equipped with a spinning nozzle mounted to the furnace cover. Each chamber is designed to permit optimum process gas bubble saturation throughout the melt to maximize spinning nozzle refining efficiency. An internal baffling system controls the flow of metal, ensuring efficient refining of the molten aluminium as it flows through the refining furnace.

The deep furnace inlet and outlet ports are designed for applications requiring additional metal head for priming downstream filtration systems. Metal flow in and out of the ports can be configured to fit a customer's available floor space.

The P-240Ui system can be manufactured in two distinct designs:

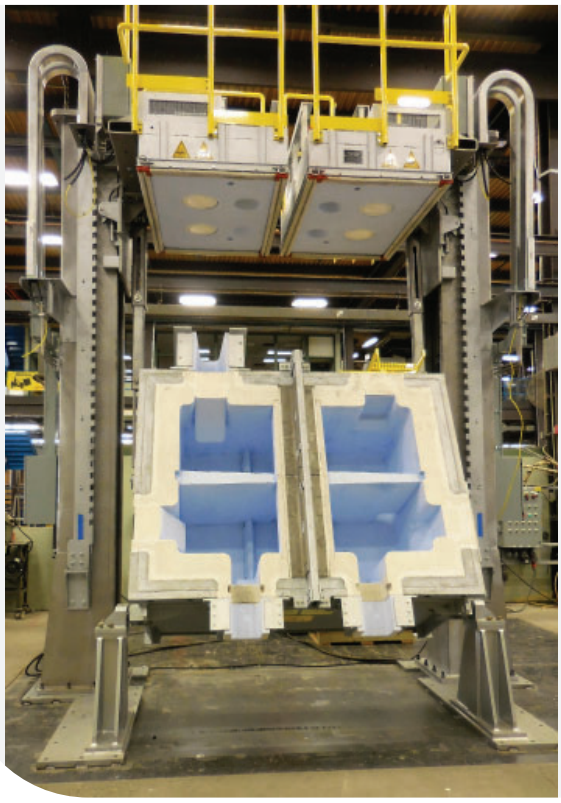
1. An In-Line design in which the four chambers are in a straight line.
2. A "U-Flow" design in which two chambers are set beside two chambers.

The flow pattern of the metal is in a "U" path.

Trough airlocks installed in the inlet and outlet ports prevent air infiltration while allowing metal to flow freely in and out of the furnace. Airlocks maintain a protective argon atmosphere "blanket" inside the SNIF refining chamber which retards dross formation and extends the service life of graphite components used in the SNIF refining process.

A tap-out drain is provided to empty the furnace for alloy changes or extensive cleaning. A tilting furnace is available as an option.

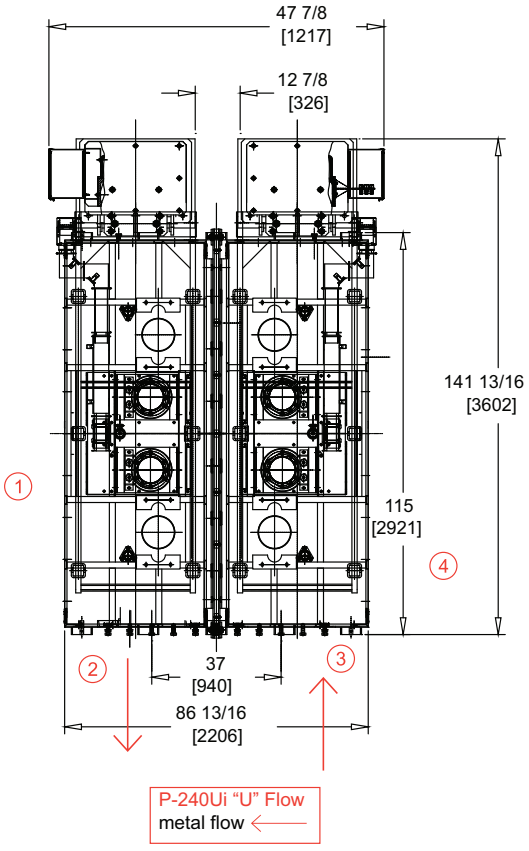
The SNIF P-240Ui system features two independent covers, each having two SHEER nozzles and two immersion heaters. Each cover can be raised independently to expose the surface of the bath for cleaning and servicing. In the closed position, the covers provide an excellent perimeter seal that prevents air infiltration and excess dross generation.



OPTIONS

P-240Ui furnaces can be ordered with a hydraulic tilting system to empty the furnace between casts for cleaning or alloy changes; and customized controls.

U-FLOW DESIGN



PYROTEK SNIF SHEER
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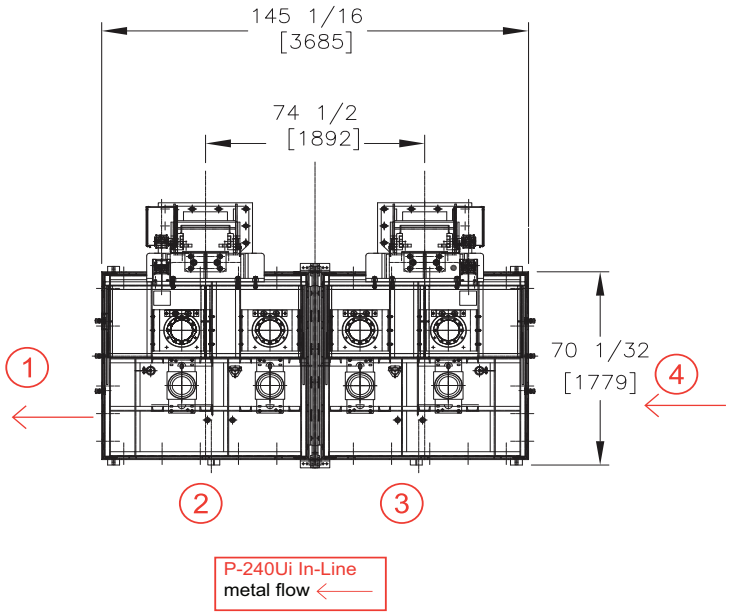
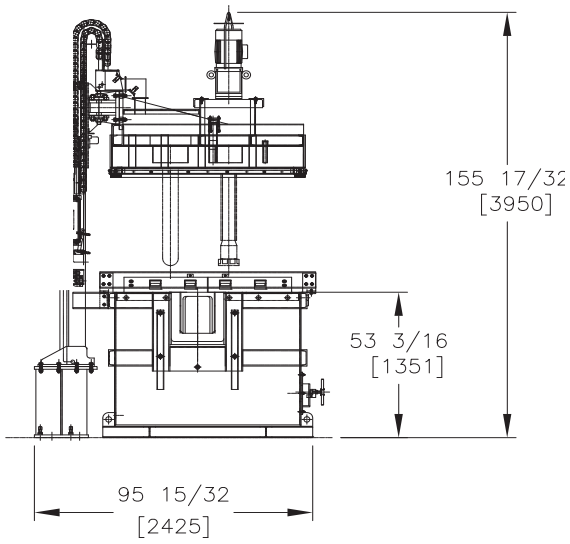
SNIF installation dimensions in AutoCAD format are available upon request.





Total Maximum Electrical Load*	
P-240Ui	100 kW - 3 Phase
Cover Lifter	2 kW – 3 phase for each cover lifter

** Primary voltage per customer requirements. Refer to installation drawings for electrical interconnection specifications for the equipment provided.*

Gas Supply Requirements	
Process Gas (Argon Recommended)	31.6 Nm^3/hr at 4.9–6.3 kg/cm^2 (maximum)
Cover Lift Mast (Plant Air)	4.2 to 6.3 kg/cm^2
Chlorine, If Required	1.6 Nm^3/hr at 2.1 kg/cm^2 (maximum)
Nm^3/hr = Normal Cubic Meter/Hour (0°C, 1.01325 bar, abs.)	1 kg/cm^2 = 14.2 psi

General Specifications	
Refining Furnace Capability, Nominal	110,000 kg/hr
Furnace Power Rating P-240Ui (Immersion)	80 kW
Furnace Static Capacity P-240Ui (Immersion)	3700 kg
Cover Lift Assembly Weight (For One Cover)	1050 kg
Estimated Furnace Assembly Weight Including Cover, Static Metal Capacity, Cover Lift Assembly and Spinning Nozzles	17,500 kg

Note: The physical and chemical properties listed represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

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Product Type: 118
Commodity Code: 16004