



# ***Epi Reactor PE3061D***

## ***Facilities & Layouts***

***FEBRUARY 2011***

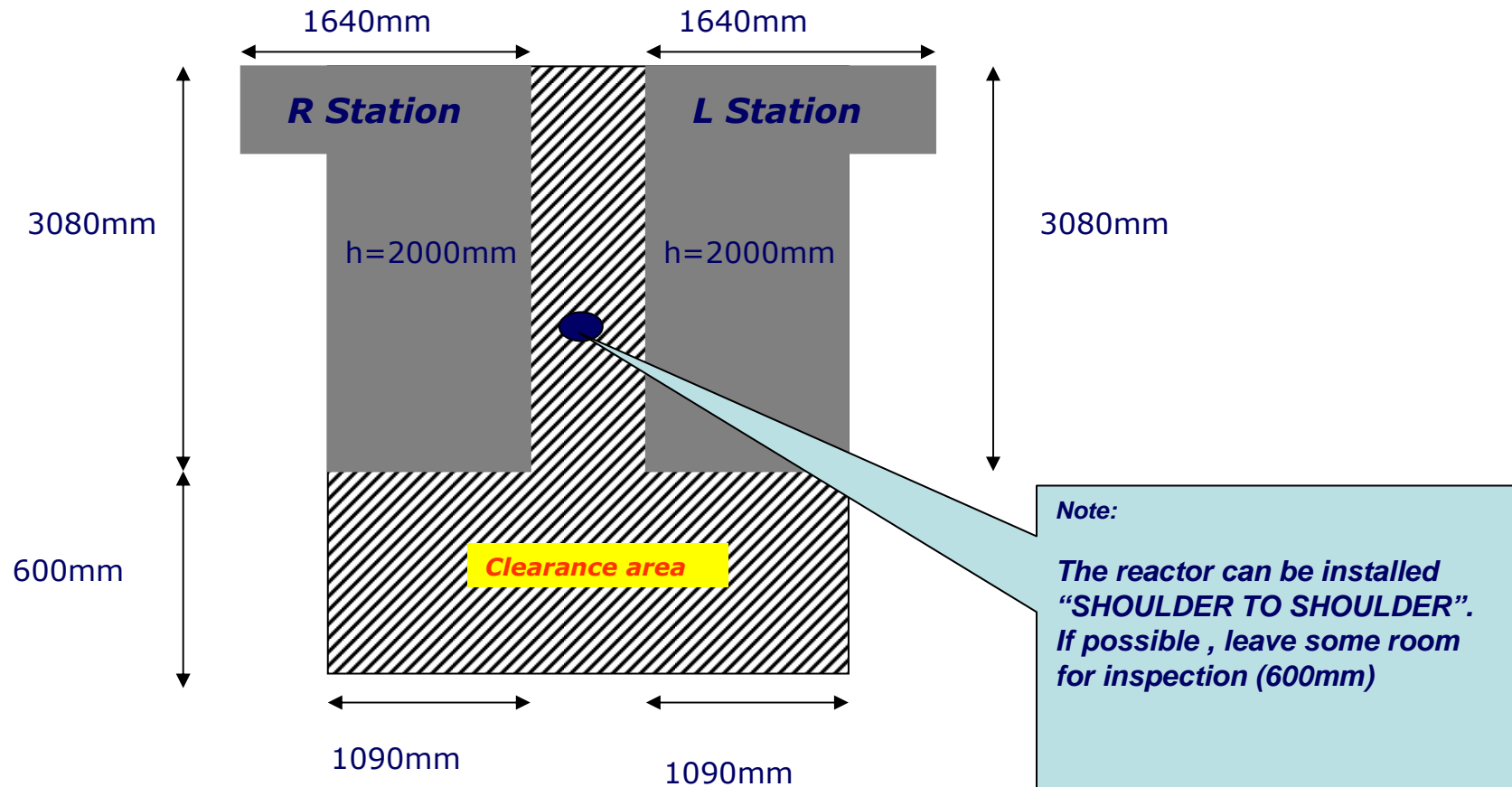
***E. Bonanno***

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# Epi System PE3061D

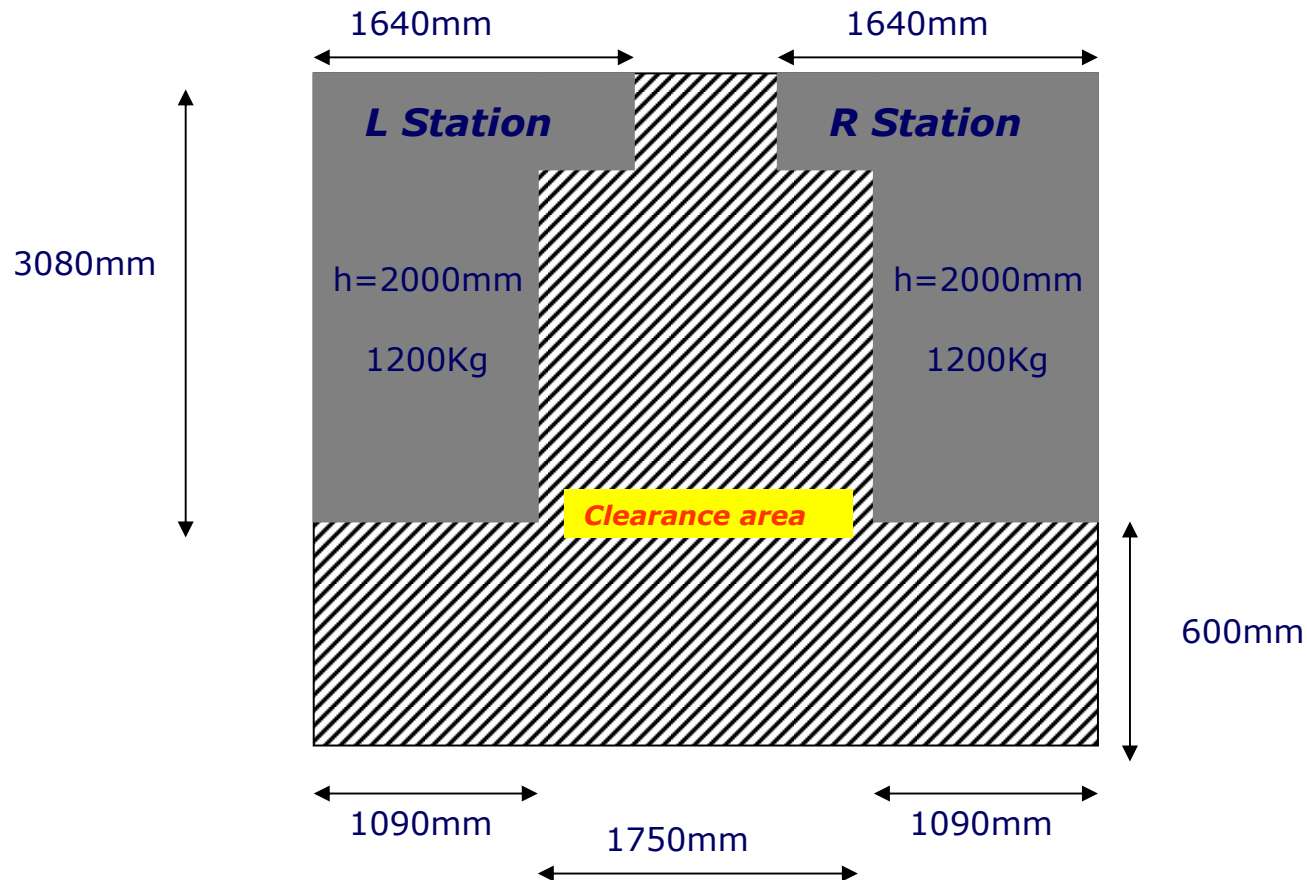
Here is the modules dimension to move in the gray room



## SHOULDER TO SHOULDER SOLUTION

# Epi System PE3061D

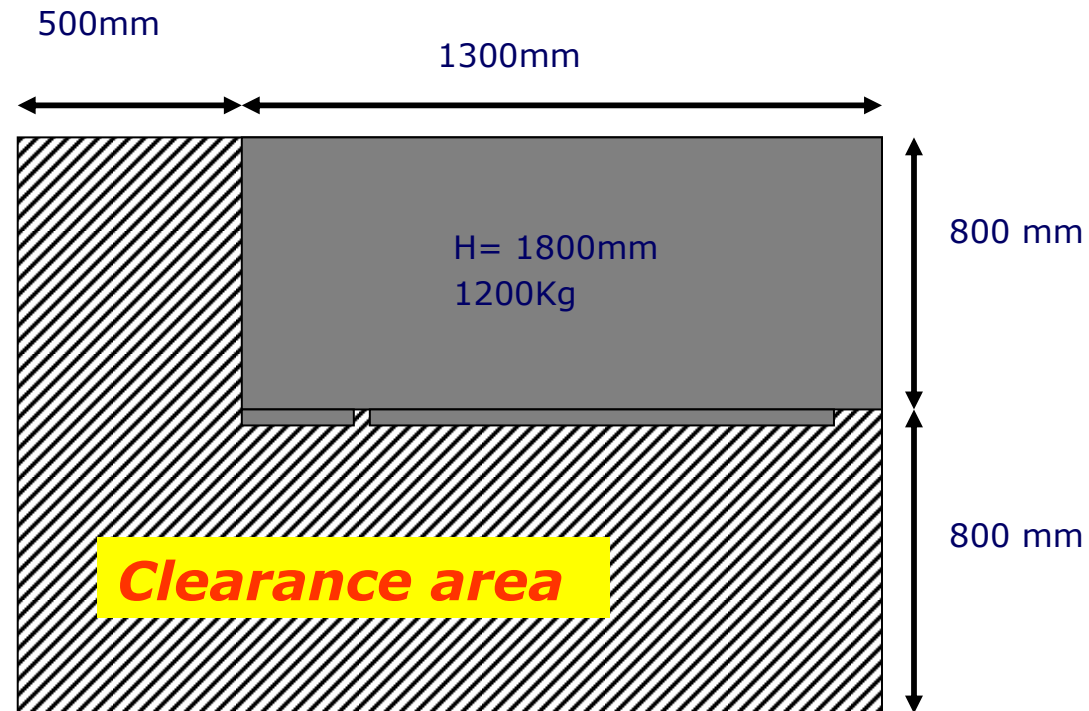
*Here is the modules dimension to move in the gray room*



## **DOOR TO DOOR SOLUTION**



# Epi System PE3061D



**SINGLE STATION**

**The RF Generator**



# **Epi System PE3061D**

## **SINGLE STATION GENERATOR FACILITY SPECIFICATION**

**Power supply:** 3phses 400Vac (or 480Vac)  
**Power:** 160KVA  
**Frequency:** 50 Hz (or 60Hz)

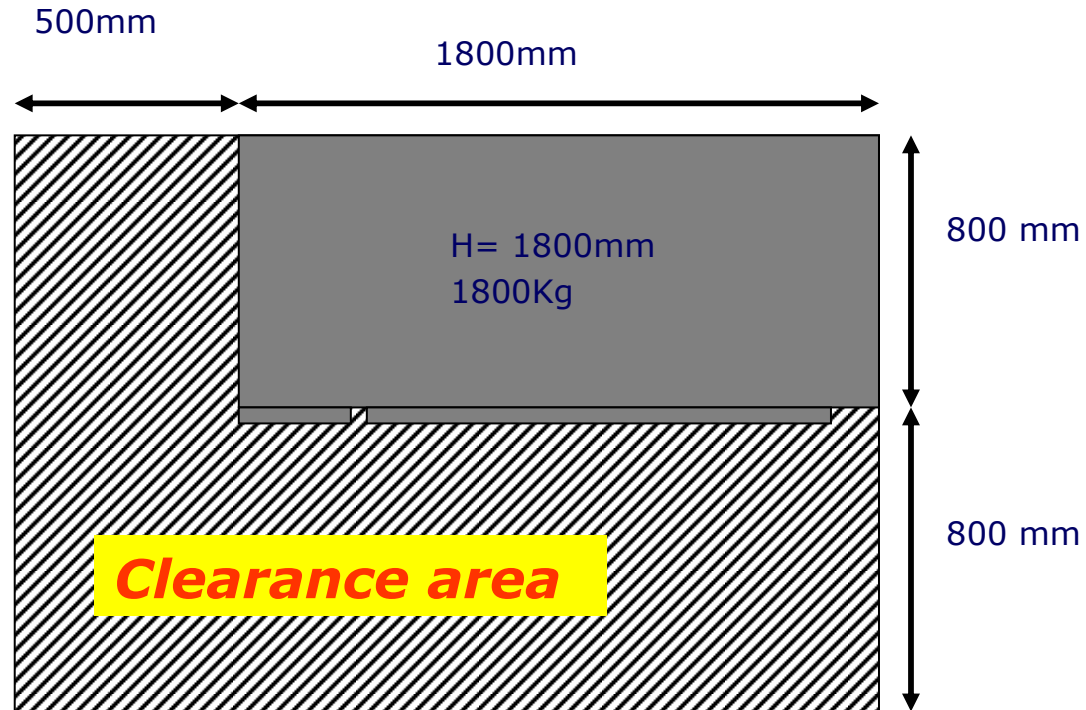
**Environment Temp:** 10-40 °C  
**Humidity:** 95%

**Water PH:** 6-8  
**Conductivity:** 200uS\*cm  
**Water in Flow:** 1,4 m3/hour  
**Water In Temp.:** 20-30 °C  
**Water in Press.:** 3-4 bar

**The RF Generator**



# Epi System PE3061D



**TWIN STATION**

**The RF Generator**



# ***Epi System PE3061D***

## ***TWIN STATION GENERATOR FACILITY SPECIFICATION***

***Power supply:***      ***3phses 400Vac (or 480Vac)***  
***Power:***              ***310KVA***  
***Frequency:***        ***50 Hz (or 60Hz)***

***Environment Temp:***      ***10-40 °C***  
***Humidity:***                ***95%***

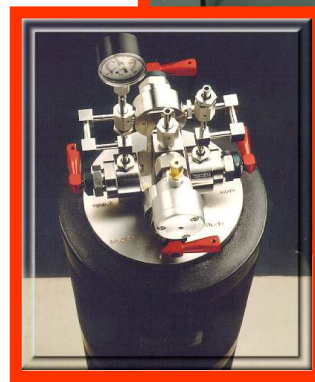
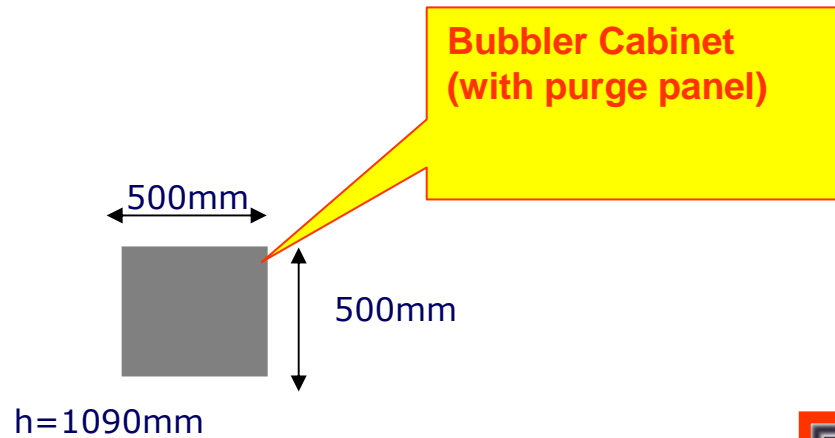
***Water PH:***                 ***6-8***  
***Conductivity:***            ***200uS\*cm***  
***Water in Flow:***          ***3 m3/hour***  
***Water In Temp.:***        ***20-30 °C***  
***Water in Press.:***        ***3-4 bar***

***The RF Generator***



# Epi System PE3061T

This system will use LPE Bubbler and Bubbler Cabinet\*



**\*optional**



# Epi System PE3061D

<b>WEIGHT/DIMENSION</b>			
<b>HEIGHT</b>	<b>DEPTH</b>	<b>WIDTH</b>	<b>WEIGHT</b>
2890 mm	3060 mm	1640 mm	1300 Kg

<b>POWER SUPPLY</b>						
<b>VOLT</b>	<b>TOLL.</b>	<b>FREQ.</b>	<b>PHASE</b>	<b>PEAK</b>	<b>NORMAL</b>	<b>KVA</b>
230 V	5%	50Hz	1ph+N	37 A	27 A	8 KVA

<b>THERMAL OUTPUT</b>		
<b>WATER</b>	<b>EXHAUST</b>	<b>TO AMBIENT</b>
80000 Kcal/h	5000 kcal/h	5000 kcal/h

<b>EXHAUST REQUIREMENT</b>			
<b>EPIREACTOR</b>	<b>SIZE</b>	<b>FLOW</b>	<b>PRESSURE</b>
PROCESS EXHAUST	SS 316L 2"	200 slm	-150 Pa
AIR EXHAUST	SS 304 250mm	1000 m3/h	-200 Pa Kg

<b>COOLING WATER (HARDNESS 125 mg/l ph 6-8)</b>						
<b>FLOW</b>	<b>Inlet T</b>	<b>Delta T</b>	<b>P inlet</b>	<b>Drop P</b>	<b>fitting</b>	<b>Filter</b>
100 lt/min	20-25 °C	+14 °C	300-600 KPa	250 KPa	1"	250um

(For each Unit) **The Utilities table**



# ***Epi System PE3061D***

<b>COOLING DI WATER</b>	
<b>FLOW</b>	<b>FITTING</b>
1 lt/h	3/8 swagelok

<b>VACUUM</b>	
<b>PRESSURE</b>	<b>FITTING</b>
200 mbar	3/8 swagelok

<b>CDA</b>	
<b>PRESSURE</b>	<b>FITTING</b>
> 6 Bar	3/8 swagelok

## ***Reactor Technical details***

## ***The Utilities table***

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# Epi System PE3061D

BULK & SPECIALTY GASES							
Substance	Typical Flow	Purity	Pressure	Pipe Size	Fitting Size	Fitting Type	Fitting Material
H2	160 SLPM	> 6N	> 60 psi	3/8"	1/4" High Flow	VCR male	AISI 316 L st.st.
N2	170 SLPM	> 6N	> 60 psi	3/8"	1/2"	VCR female	AISI 316 L st.st.
HCl	35 SLPM	> 4N5	> 60 psi	3/8"	1/4" High Flow	VCR male	AISI 316 L st.st.
Dope	1 SLPM	> 6N	> 60 psi	1/4"	1/4"	VCR male	AISI 316 L st.st.
TCS/TET	40 gr/min	> 3N	> 20 psi	3/8"	1/2"	VCR female	AISI 316 L st.st.

**Reactor Technical details**

**The Utilities table**

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