

Medical Vacuum Source Sizing (HTM 02-01)				
Occupancy	Count	Units of count	Formula	Diversified Flow (lpm)
<b>In-Patient Acute Care</b>				
Single and Multiple bed rooms and Wards	380	Beds (nB)	$Q = \text{RoundUp}(\text{Nb}/28) * 40$	560
Treatment Rooms		Beds (nB)	$Q = 40 + (n-1)*40/4$	
<b>Accident &amp; emergency:</b>				
Resuscitation room, per trolley space		Beds (n)	$Q = 40 + (n-1)*40/4$	
Major treatment / plaster room, per trolley space		Beds (n)	$Q = 40 + (n-1)*40/4$	
Post-anaesthesia recovery, per trolley space		Beds (n)	$Q = 40 + (n-1)*40/4$	
Treatment room / cubicle		Beds (n)	$Q = 40 + (n-1)*40/8$	
<b>Operating:</b>				
Anaesthetic rooms		Rooms (T)	$40*T$	
Operating rooms		Rooms (T)	$80*T$	
Operating suites		O.R.s (S)	$Q = (120*2) + (S-2)*60$	
Post-anaesthesia recovery		Beds (n)	$Q = 40 + (n-1)*40/4$	
<b>Maternity:</b>				
LDRP rooms:				
- Mother		Rooms (n)	$Q = 40 + (n-1)*40/4$	
- Baby		Rooms (n)	No additional flow included	
<i>In-patient accommodation:</i>				
- Single and Multiple bed rooms and Wards		Beds (nB)	$Q = \text{RoundUp}(\text{Nb}/28) * 40$	
- Nursery, per cot space		Cots (n)	No additional flow included	
- SCBU (Special Care Baby Unit)		Cots (n)	$Q = 40 + (n-1)*40/4$	
<b>Radiology/diagnostic departments:</b>				
All anaesthetic and procedures rooms		Rooms (n)	$Q = 40 + (n-1)*40/8$	
<b>Critical care areas</b>		Beds (n)	$Q = 40 + (n-1)*40/4$	
<b>High-dependency units</b>		Beds (n)	$Q = 40 + (n-1)*40/4$	
<b>Renal</b>		Beds (n)	$Q = 40 + (n-1)*40/4$	
<b>Adult mental illness accommodation</b>				
ECT room (Electroconvulsive therapy)		Rooms (n)	$Q = 40 + (n-1)*40/4$	
Post-anaesthesia, per bed space		Beds (n)	$Q = 40 + (n-1)*40/4$	
<b>Adult acute day care accommodation</b>				
Treatment rooms		Rooms (n)	$Q = 40 + (n-1)*40/4$	
Post-anaesthesia recovery per bed space		Beds (n)	$Q = 40 + (n-1)*40/8$	
<b>Day patient accommodation (as "In-patient accommodation")</b>				
Single and Multiple bed rooms and Wards		Beds (nB)	$Q = \text{RoundUp}(\text{Nb}/28) * 40$	
Treatment Rooms (Including Major treatment, endoscopy,...)		Beds (nB)	$Q = 40 + (n-1)*40/4$	
<b>Oral surgery/orthodontic:</b>				
Consulting rooms, type 1		Rooms (n)	Dental vacuum only	
Consulting rooms, types 2 & 3		Rooms (n)	Dental vacuum only	
Recovery room, per bed space		Beds (n)	$Q = 40 + (n-1)*40/8$	
<b>Out-patient:</b>				
Treatment rooms		Rooms (n)	$Q = 40 + (n-1)*40/8$	
<b>Equipment service rooms, sterile services, etc.</b>		Rooms (n)	$Q = 40*n$	
		Rooms (n)	$Q = 40*n$	
		Rooms (n)	$Q = 40*n$	
		Rooms (n)	$Q = 40*n$	
		Rooms (n)	$Q = 40*n$	
				<b>LPM</b>
<b>Peak Calculated Demand (LPM):</b>				<b>420</b>
				<b>SCFM</b>
				<b>14,83215809</b>
				<b>m3/h</b>
				<b>25,2</b>
<b>Peak Calculated Demand (LPM) with altitude correction:</b>				<b>432,6</b>
				<b>15,27712284</b>
				<b>25,956</b>

Note: Peak calculated demand = Sum \* 0,75

Incremento del 25%  
reserva

540,75 LPM