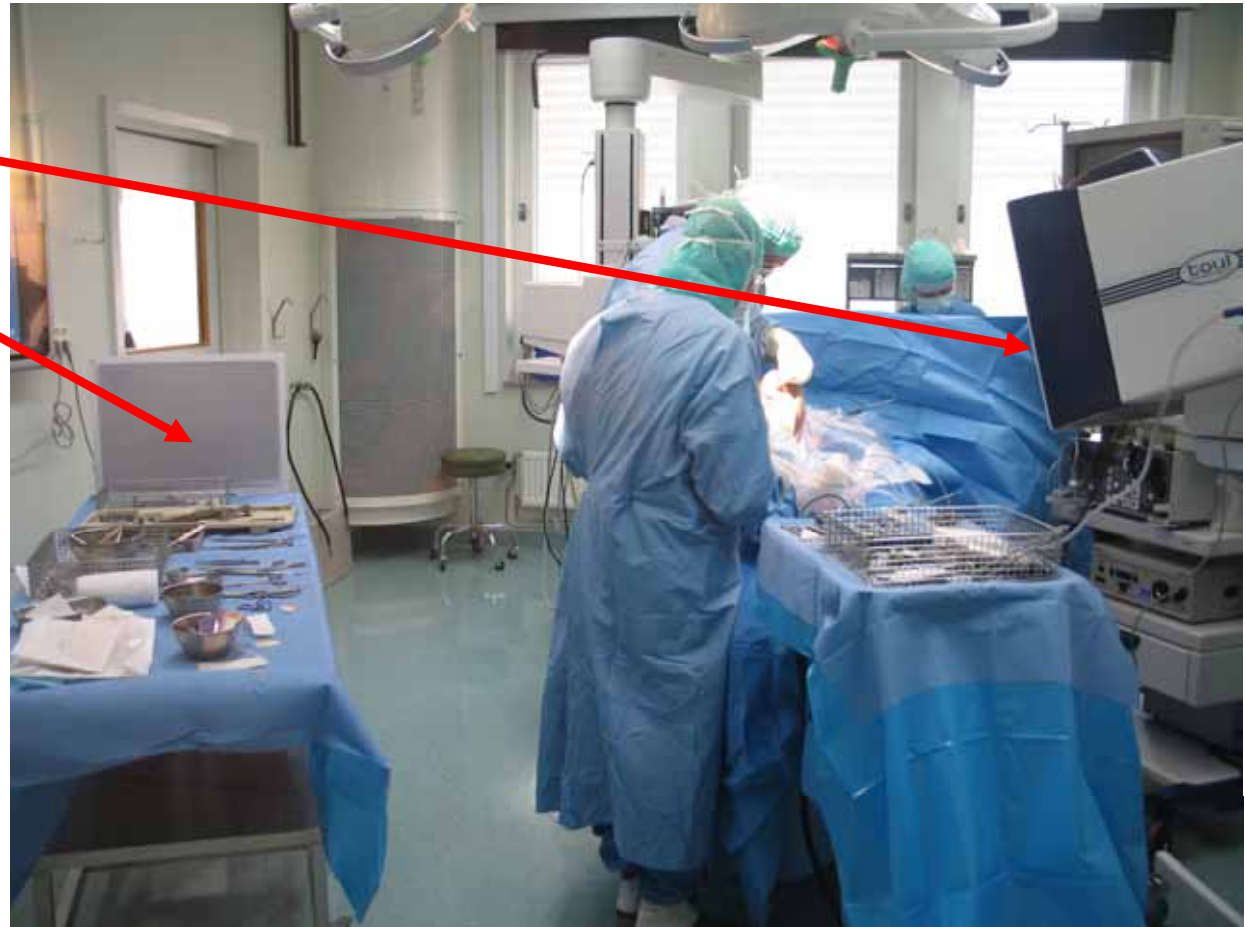


A new mobile system Toul:

A combination of Laminar Air Flow and high efficient HEPA filters to create sterile laminar airflow wherever needed



Extreme reduction of bacteria contamination (below 5 CFU/m³)

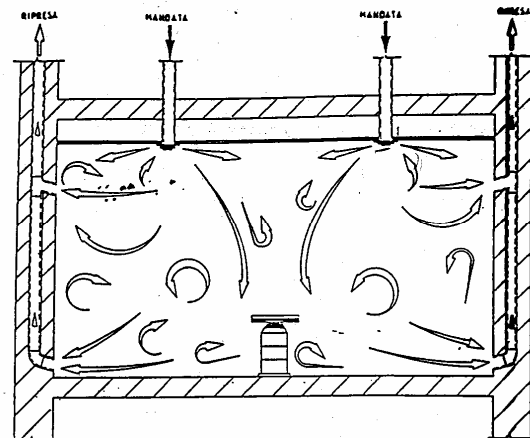
Toul is a combination of Laminar Air Flow and high efficient HEPA filters.



Conventional airflow systems do mostly not arrive at the operating field as they are hindered by the surgical light and the heads of the operating team.

Toul is positioned very close to the operating field and therefore it is possible to reduce the contamination level by almost 95 % for the operating field and Toul instrument table.

Contamination level in the operating field



Conventional Operating room	With Toul
50-200 CFU/m³ (depending on the duration of the operation and the number of persons in the O.R.)	< 5 CFU/m³

Toul Mobile Laminar Air Flow



Toul guarantees sterile conditions in the operating field and on the instrument table even in extreme conditions. Toul can be used immediately due to sterile screens which are to be exchanged just before the operation starts and guarantee a maximum sterility .

Mobile unit for laminar sterile air

- Filter HEPA: 99,995%
- Air quantity: max.500 mc/h
- Speed of air: 0,5mt/sec
- Power supply: 230 VAC ,50Hz
- Consumption: 260W
- Weight: 60 Kg
- Touch screen for easy use of the unit

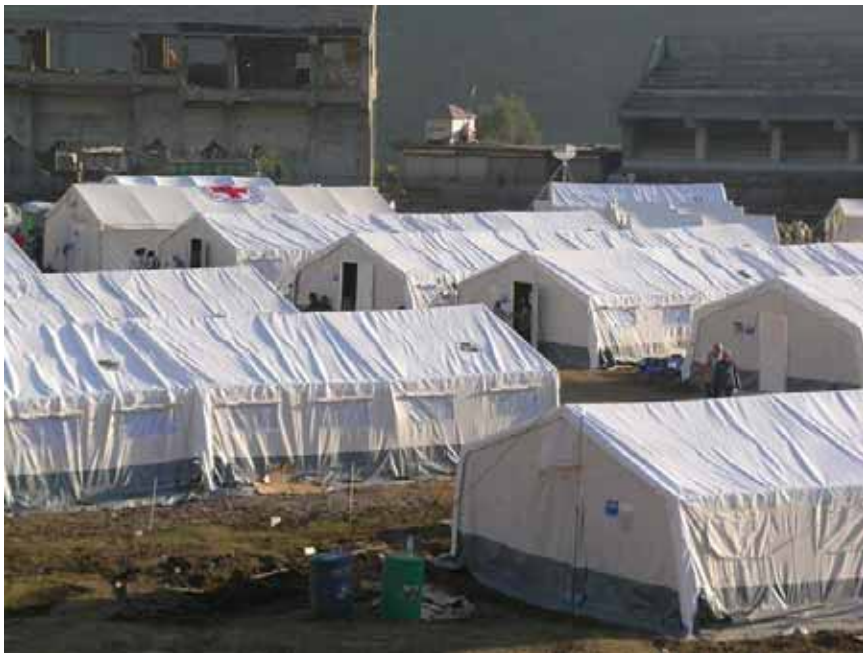


Toul Instrument table maintain the sterility of the instruments even in dirty environments like field hospitals

toul
meditech



Toul creates
immediate sterile
conditions wherever
you need it





To protect
burned
patients



After natural catastrophes, terrorist attacks, wars it is important to
have immediate access to medical assistance.



An English Study from Whyte has been estimated that 98 % of bacteria found in the patient's wounds come directly or indirectly from the air. There is a clearly relationship between the quality of the air and the degree of sepsis encountered. Under normal circumstances, the main source of airborne microbial contaminants is microscopic skin fragments given off by staff in theatre.



As few as 10 colony forming units (CFU/m³) are sufficient to cause a deep infection*. Gosden PE, Mac Gowan AP Bannister GC J. Hosp Infect 1998;



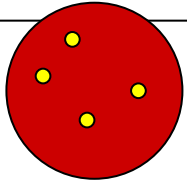
Richard I. Whyte
Stanford University Medical Center,
Cardiothoracic Surgery

In a conventional operating room you can expect about 50 to 200 CFU/m³. This number is rising the more people are in the operating room and the longer the operation last



A main problem especially in longer operations is the contamination of surgical instruments due to human presence and their activity within the operating room.

Clinical tests and CFU-values



Sedimentation
plate with cfu/m³



Sartorius



Clinical tests and CFU-values with Toul



**Operation from 21 to 27 April
2005 Stockholm (Sweden)**

OP	Results in CFU/m ³
Operation 1	0,5
Operation 2	1
Operation 3	0
Operation 4	1,5
Operation 5	0
Operating Room without Toul	233 (99- 383)

Advantages

1

Reduction of the contamination on surgical site

2

Quick and easy solution for producing sterile air

3

Keeps the operating field sterile even in extreme conditions

4

Sterile air in wound area

5

Easy to move

6

Elimination of smoke during electro surgery

7

Easy to use

8

Easy to clean



Use



1

Day-Hospital

2

Field hospitals

3

After natural catastrophes

4

Emergency department

5

Burned Patients, e.g. after terrorists attack

6

Implantation surgery

7

Keeping instruments sterile

8

High risk patients

