



Modular Fume Cupboard System – made of steel.

**THINK BIGGER:**  
SI 3 steel

**WALDNER**

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SI 3 steel

**THE MODULAR FUME CUPBOARD SYSTEM – MADE OF STEEL**

SI 3 steel lets you think bigger in every dimension. Flexible, intelligent use of the interior workspace creates more space for efficient work. Advanced, practical ergonomics simplify and accelerate processes. Forward-looking safety features protect both personnel and laboratories, whatever the work. SI 3 steel is a future-proof design at its very best.

Discover laboratory technology used in leading laboratories of the world. Invented and made by WALDNER.

- + MORE SPACE
- + MORE ERGONOMICS IN EVERY DETAIL
- + MORE USER SAFETY
- + MORE EFFICIENCY – LESS NOISE
- + MORE FLEXIBILITY IN EVERY DIMENSION
- + MORE VARIETY FOR YOUR NEEDS



**OUTSTANDING SPATIAL ERGONOMICS WITH SI 3 steel**

With SI 3 steel, the work surface remains 100 % work surface. The unique scaffold points system for 12 and 13 mm diameter pegs reliably holds your superstructures from the rear, thereby saving space.

The sanitary appliances, including drip cup, are positioned ergonomically and conveniently on the side panels of the 1345 mm high work space.

The most important aspect remains in the centre: significant additional free space for productive lab work, fully visible and perfectly lit by integrated, high-performance, energy-efficient light sources.

MORE

SPACE

## MORE ERGONOMICS IN EVERY DETAIL

### 1 UNOBSTRUCTED VIEW, HEALTHY POSTURE

The SI 3 steel design ensures an unobstructed view of the entire fume cupboard, guaranteeing both safety and a healthy, upright posture. Naturally including reliable protection from spray and splinters when the sash is closed.

### 2 ALWAYS TO HAND, NEVER IN THE WAY

The drip cup, ergonomically integrated into the side panel, can be perfectly accessed and used, leaving the entire work surface fully available.

### 3 SASH CLOSED, HANDS PROTECTED

SI 3 steel is the fume cupboard system that provides a safe clamping guard for your hands – a key feature to enhance the safety of lab personnel.

### 4 SPARED EFFORT, SIMPLIFIED WORK

Minimal effort of only 20 N is needed to move the user-friendly sash window into the position you require, leaving lab personnel with more energy for productive work.

### 5 CABLE ROUTED, AIR FLOW UNDER CONTROL

The fume cupboard system has a hinged air foil cill for safe connections that do not damage the cable. This opening reliably routes supply leads into the interior, without this having an adverse impact on the quality of the extraction.

### 6 CREATES LIGHT, PROMOTES AWARENESS

Integrated lighting perfectly lights up the SI 3 steel and counteracts users' fatigue, as challenging work demands maximum concentration.

### 7 EASY TO REACH, SAFE TO OPERATE

All of the SI 3 steel's control units are positioned so that they can be easily, intuitively and safely reached, improving operating comfort and productivity. Effective pressure relief is provided through the ceiling in the event of an explosion.



1



2



3



4



5



6



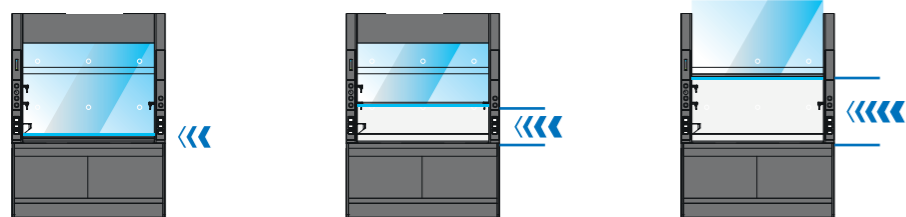
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# MORE USER SAFETY

## OUTSTANDING SAFETY AND EXTRACTION PERFORMANCE

A sophisticated design concept makes the SI 3 steel fume cupboard system a key safety factor in your lab. Its ultra-efficient geometry effectively protects employees, the laboratory and work results from damage, ensuring compliance with prescribed workplace exposure limits.

SI 3 steel is tested according to DIN EN 14175-3, as well as ASHRAE 110-2005, and offers unique and efficient extraction performance. An optimised air foil cill ensures the removal of heavy gases and also serves as a safe cable route into the internal workspace.



- 1 Sash window closed.
- 2 500 mm maximum operating opening in compliance with DIN EN 14175-3 or optionally 18" in compliance with ASHRAE 110-2005.
- 3 785 mm maximum opening height for ease of inserting equipment for experiments.

1

2

3



# MORE EFFICIENCY

## **SI 3 steel, A MOTOR FOR GREATER EFFICIENCY**

What speeds up workflows? How can work be completed faster and more safely? Where can technology ideally aid the efficiency of your laboratory? The idea for SI 3 steel evolved from these considerations. The fume cupboard system is, at one and the same time, a motor for the efficiency of your company. Cost-effective customisation, flexible modularity, solid quality and, last but not least, technical details, such as low flow technology, contribute to maximum value creation.

# LESS NOISE

## **MINIMUM NOISE EMISSIONS, THANKS TO LOWER PRESSURE LOSSES**

The SI 3 steel extraction system not only monitors the removal of pollutants but also has its own noise level under control. The system's low pressure losses enable it to combine high performance with ultra-low noise emissions. This unobtrusive and reliable performance by the SI 3 steel paves the way towards a more productive working environment and greater safety.

2400  
INSTALLATION HEIGHT



**MORE FLEXIBILITY  
IN EVERY DIMENSION**

**MODULAR WIDTH SYSTEM FOR OPTIMUM USE  
OF SPACE**

The modular SI 3 steel width system brings major advances into even smaller laboratories. The grid includes five different widths, ranging from 1200 mm to 2400 mm, enabling space-saving lab design optimisation for work in every space.

**GENEROUS OPENING HEIGHT OF THE SASH WINDOW**

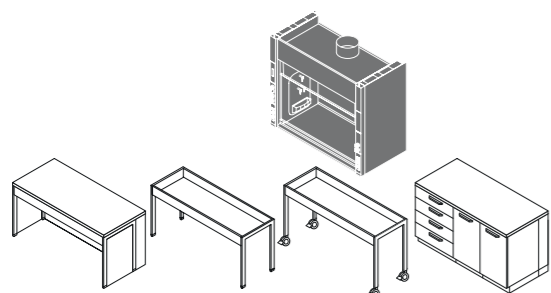
All the different widths offer personnel a large degree of freedom of movement. Your sash window opens up to a height of 500 mm (DIN EN 14175-3) and/or 18" (ASHRAE 110-2005) and permits ease of access to the entire internal workspace.

**FUME CUPBOARD HEAD UNIT FIXED TO WORKTOP**

Gain even more flexibility when designing your laboratory, thanks to the fixed integration of the worktop within the SI 3 steel, ensuring that you can design your lab scheme regardless of the conditions on site.

**FIXED INSTALLATION HEIGHT WITHOUT VARIABLE  
SPACE REQUIREMENTS**

The SI 3 fume cupboard system has a height of 2400 mm, permitting efficient laboratory design by making optimum use of the height of the space.



The fume cupboard head unit with integrated worktop can be used on all supporting constructions and can even be assembled on existing benches.

1200

1500

1800

2100

2400

**MORE VARIETY  
FOR YOUR NEEDS**



**FLEXIBLE WITH SMART PANEL TECHNOLOGY**

SI 3 steel adapts effortlessly to your needs. WALDNER offers efficient panel technology for the fume cupboard mullions. It is now possible to cost-effectively retrofit and/or modify your laboratory without disrupting lab operations with minimal installation work.

**SANITARY MODULES WHERE YOU NEED THEM**

Fit a practical number of slots on each side of the internal workspace. You decide how many valves you need and where they are positioned. The ergonomically positive integration of the drip cup into the solid side panel simplifies work and retains the entire size of the work surface.



**ALWAYS THE RIGHT GAS SUPPLY**

Service modules with appropriate take-off valves supply the SI 3 steel with a wide range of gases, coordinated to the needs of the leading laboratories around the world. You therefore benefit from considerable versatility when it comes to equipping your fume cupboard systems with correct services. Select from non-flammable and flammable technical gases, liquid gases, natural gases and high purity gases.



**DEMAND-LED ELECTRICAL INSTALLATION**

SI 3 steel is equipped with the right socket types to meet your specific needs, with the number corresponding to typical laboratory requirements. A circuit breaker is also supplied in the fume cupboard top panel.



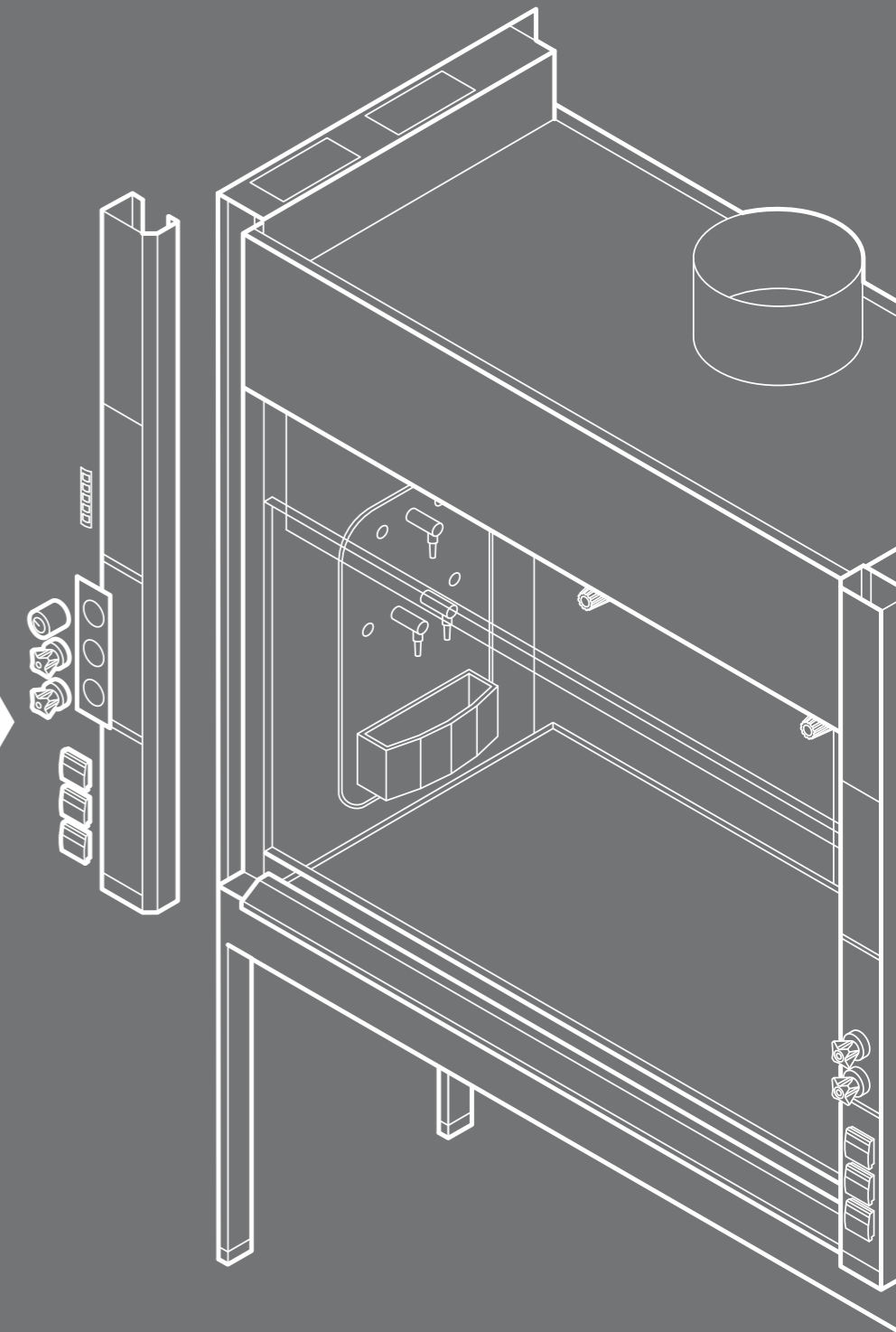
**GAIN SPACE THROUGH  
SEPARATE INSTALLATION  
AND EQUIPMENT**

SI 3 steel integrates the drip cup and modules into the side panels and not into the workbench, leaving 100% of the work surface free for your laboratory set-up.



**FASTER RETROFITS THANKS TO  
PANEL TECHNOLOGY**

The cover panels and side and/or installation mullions are removable, enabling you to retrofit modules in seconds.



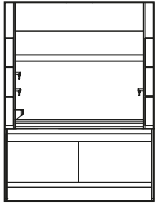


# LABORATORY EXCELLENCE WORLDWIDE

The leading laboratories of the world are the germ cells of progress. Advanced technology, ergonomics, safety and sustainability are growing in importance when valuable knowledge for the future is being created.

WALDNER is creating the very best conditions for excellent results with functional and aesthetically persuasive concepts, like the SI 3 steel fume cupboard system: they are the key to a highly efficient, inspiring laboratory environment.





SI 3 steel		1200	1500	1800	2100	2400
Clear width (internal)	mm	940	1240	1540	1840	2140
Clear height (internal)	mm			1345		
Working height	mm			900		
Depth (external)	mm			900		
Height (external)	mm			2400		
Weight (without installations)	Approx. kg	220	290	350	410	470
Supporting construction		H-frame with push-in underbench units				
Sash		One-piece				
Scaffold points, Ø 12 mm - 13 mm	No.	6	6	6	8	10

#### VENTILATION TECHNOLOGY

Minimum air exchange rate as per DIN EN 14175-3 <sup>1)</sup>	m <sup>3</sup> /h	380	460	500	650	750
ASHRAE 110-2005 with 0,3 m/s / 60 fpm <sup>2)</sup>	m <sup>3</sup> /h	470	620	770	910	1060
ASHRAE 110-2005 with 0,5 m/s / 100 fpm <sup>3)</sup>	m <sup>3</sup> /h	780	1030	1300	1520	1770
Functional display		FAZ / External control				
Connection height for FAZ with extract air spigot Ø 315	mm	2420				

1) Air volume specifications refer to a 500 mm opening height of the sash window (test opening in line with DIN EN 14175-3) and the recommended tracer gas values recommended by BG Chemie.

2) Air volume specifications refer to the prototype test in line with ASHRAE 110-2005 with a face velocity of 60 fpm (0.3 m/s).

3) Air volume specifications refer to the prototype test in line with ASHRAE 110-2005 with a face velocity of 100 fpm (0.5 m/s).

The indicated minimum air exchange rates were determined under specified test conditions in compliance with DIN EN 14175-3 and ASHRAE 110-2005. Adapt these minimum air exchange rates when sizing the ventilation system. The required air volumes may differ if on-site extract air monitoring systems or airflow dampers are used. Agree the operating limitations with WALDNER.

#### MATERIAL / FINISHES

Worktop	Epoxy
Internal lining	Polyresin, solid (grade) laminate



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