

**Laborbau | Systeme**

HEMLING.de

Ceiling supply

systems for

classrooms

**LS Top**  
**LS TopFLEX**



# Media supply systems for more room flexibility



## Always on top. And as flexible as necessary.

Especially for the requirements in schools, Laborbau Systeme Hemling has developed a school range which includes fully-equipped student work stations, cabinet systems, fume cabinets and desks, as well as sophisticated media supply systems.

With **LS Top** and **LS TopFLEX** we even offer you two systems for the ceiling-controlled media supply of student work stations and the teacher desk.

Media supply and disposal using a system mounted on the classroom ceiling makes the rooms more flexible and multi-functional in their use for all science subjects. This is particularly true of the **LS TopFLEX**, the height-adjustable variant.



*"From a safety and functionality point of view, the testing parameters for laboratory facilities can never be strict enough. Here I would say: the test has been passed with honours."*

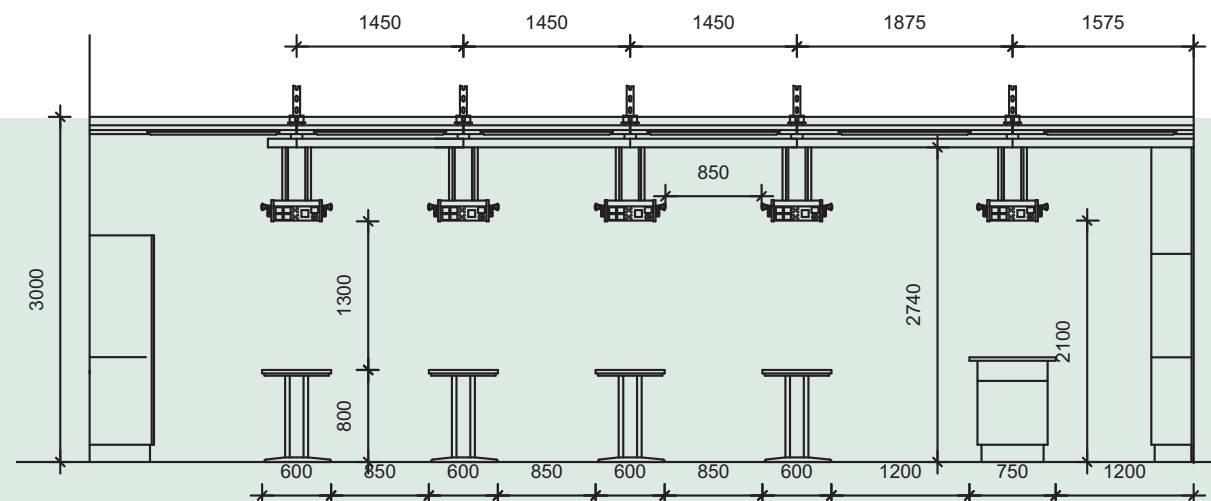
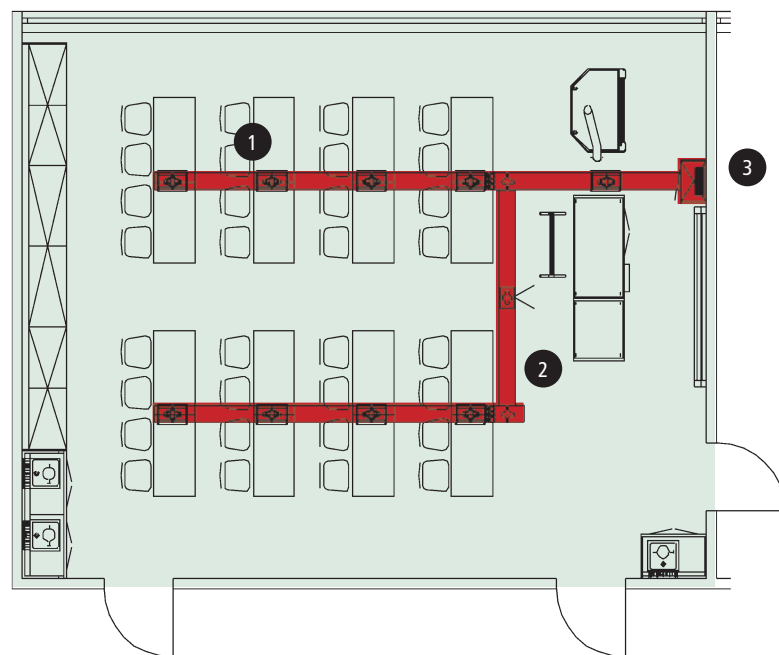
- GS mark for all individual products and the entire system
- CE declaration of conformity
- Overheat protection on all electrical components
- Audible signal if the entire system is moved
- Immediate stoppage of the entire system in case of counter-pressure higher than 50 Nm (5 kg)
- Verification of statically determined structural system



# LS Top

## The fixed media supply system

LS Top is a fixed system of media stations with central feed to insert the feed lines into the supply duct. If a mobile teacher desk is used, all control units for releasing the media for the students, room illumination, darkening, etc. are in the central feed. Power distribution, emergency-off switches and the propane gas cylinder for a decentralised gas supply are located there. The lower edge of the media stations is located at a fixed defined height of 2,100 mm above the floor.



### 1 Media stations

The media stations are equipped with socket outlets, selector leads, EDP boxes, emergency-off switches and sanitary fittings – everything is as required and can be selected individually.

### 2 Supply and transverse ducts

The supply ducts made of perforated plate contain the electrical and sanitary lines. The media stations for the use of electrical media and sanitary media are located on the supply ducts.

A transverse duct connects the two supply ducts and additionally contains the projector mount, loudspeakers and board illumination.

### 3 Central feed with/without sink

The central feed is the central delivery point for the media in the room. The sanitary and electrical lines are fed into the supply duct from there. The operation of ceiling systems, media supply, illumination, darkening, ventilation, sound and projection is controlled in the central feed. The central feed also contains magnet valves, socket outlets, key-operated push buttons, circuit breakers, EDP switches, propane gas cylinders and amplifiers. A sink can also be integrated in the central feed.





The top of our class:

# LS TopFLEX

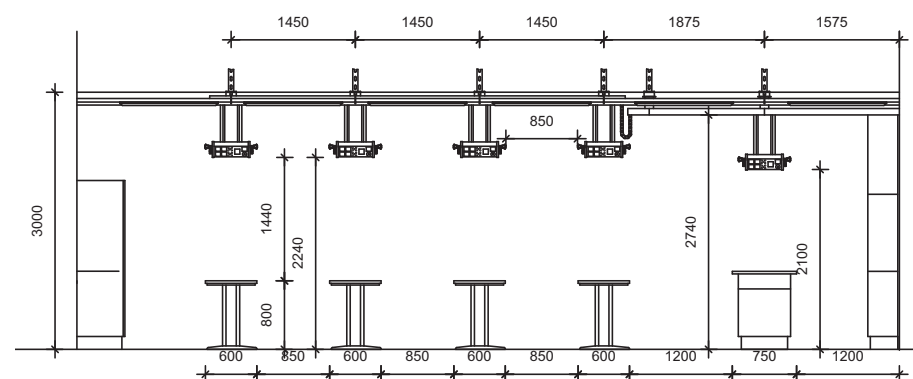
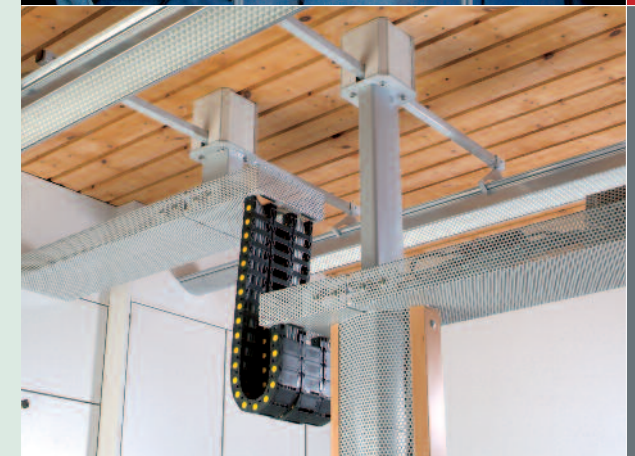


LS TopFLEX can be completely lowered by 600 mm

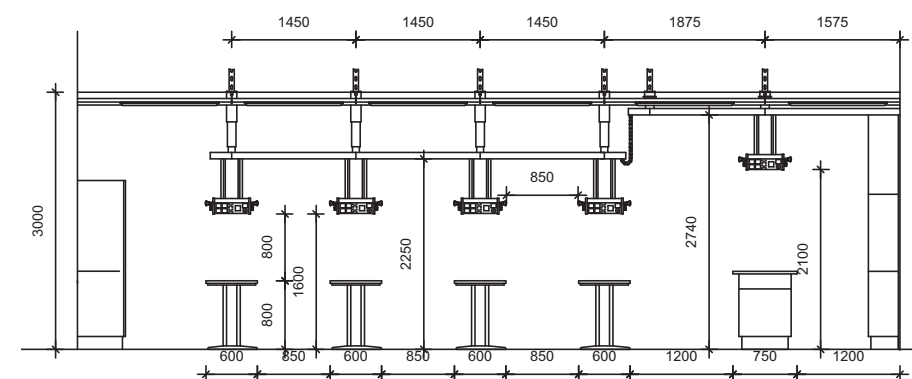
## The top-notch flexible media supply system

LS TopFLEX differs from LS Top in one significant way: In the flexible system, the supply ducts (except for the first elements from the central feed) can be completely lowered by 600 mm from a height of 3,000 mm. Lowering is carried out using the central feed or above the teacher desk. Thus the media stations are at a height of 1,600 mm over the floor or 800 mm over the student desk – at a reachable height. When the media are not being used, the system is simply moved upwards.

- **extremely user-friendly**  
individual height adjustment for seated or standing activities – ideal work due to practice-oriented room and work station illumination
- **practice-oriented flexibility**  
individual lowering of the system is possible for individual working groups
- **maintenance-free**  
all mechanical components for height adjustment are maintenance-free



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# Supplementary equipment makes learning easier



## Seeing, hearing and understanding better

Conveying the contents of the lesson successfully requires a light and sound system which is perfectly configured. Therefore factors such as work space illumination and room irradiation are much more than just pieces of supplementary equipment. The students' success stands or falls with them. We take care of the best conditions for successful learning – systematically.

**Room illumination:**  
Illumination is also available in a reflection-free design using two light strips located parallel to the supply duct which have an ideal arrangement for lighting technology. We carry out the calculations for room illumination. All light fixtures can be delivered with digital regulation.

**Work station illumination:**  
The work stations are individually lighted with illuminates on the underside of the supply duct.

**Loud speakers:**  
Loud speakers for irradiating the classroom are mounted on the transverse duct.

**Projector:**  
A universal projector mount fixed to the underside of the transverse duct accommodates projectors of all makes.

**Board illumination:**  
Two spotlights are mounted on the transverse duct to illuminate the boards optimally.



*"In my daily work with the students, it is essential for the entire laboratory system to interact perfectly. All the students need to be able to see and understand what I am doing at my central work station, from beginning to end. That's why there is no room in my classroom for media components which aren't compatible or are of a poor quality."*



# Making more of it

## Staying flexible – in all teaching and learning situations

Multi-functional classrooms offer a variety of ways to create challenging lessons and at the same time flexibly respond to the type and composition of the group of students. The supplementary furnishings of our whole range are also built for day-to-day school life and respond directly to the requirements which we hear about time and again in personal conversations with dedicated teachers.

### Water station in 2 designs

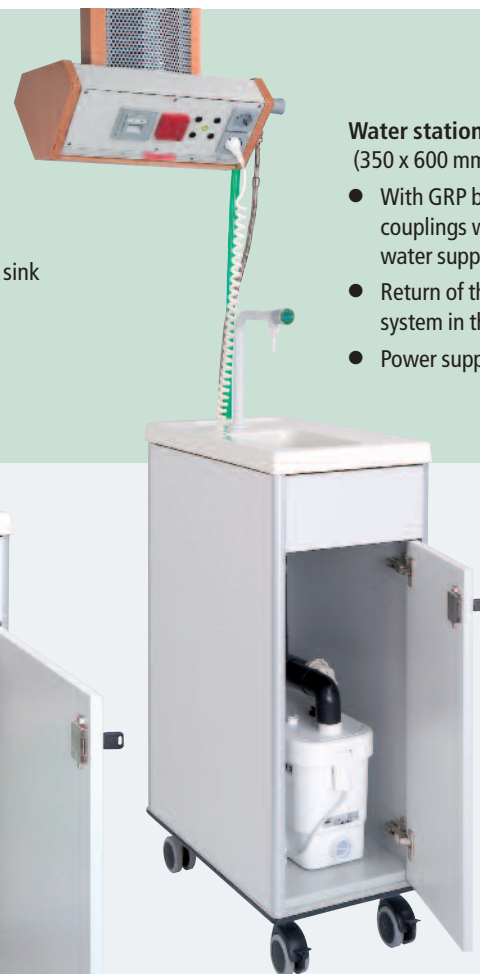
#### Water station with fresh and waste water container (600 x 600 mm)

- Closed system with GRP basin and fixed taps
- Fresh water pump to be drawn through the taps
- Waste water pump to empty the waste water container on a sink
- Power supply via media station



#### Water station with lifting system (350 x 600 mm)

- With GRP basin, fixed taps and quick-acting couplings which close on both sides for water supply and waste water
- Return of the waste water using lifting system in the ceiling system
- Power supply via media station



### Lehrertisch in zwei Ausführungen

- as a stationary desk with integration of the control elements
- mobile, moveable teacher desk – the system is controlled via the central feed

### Student desks in various designs

Student desks for various group sizes and learning situations



### Moveable demonstration fume cupboard

- Fume cupboard is in accordance with the European standard for fume cupboards EN 14175, T1
- Energy is supplied via a media station, central feed or the stationary teacher desk
- Glazing with 6 mm ESG
- The fume cupboard can be viewed optimally from all sides due to its trapezoid shape
- Also optionally available with waste water lifting system

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