

EN

EP.V.34171.00 | 04/2023



S LINE

K LINE

XL LINE

USER MANUAL

Safety storage cabinets according to EN 14470-1

5 YEARS WARRANTY

Upon conclusion of an asecos service and maintenance agreement (BasicPlus tari) with a fixed term of 5 years, you will get a warranty extension for a maximum of 5 years for your safety storage cabinet.

For detailed information about our warranties please visit:





S-CLASSIC-90



S90.196.120
S90.196.120.WDAS
S90.196.120.MV.WDAS



S90.196.090
S90.196.090.WDAS



S90.196.060
S90.196.060.WDAS
S90.196.060.R
S90.196.060.WDASR
S90.196.060.MH.WDAS
S90.196.060.MH.WDASR
S90.196.060.075.WDAS
S90.196.060.075.WDASR

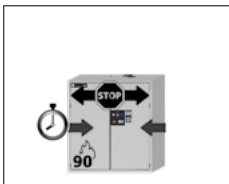


S90.129.120
S90.129.120.WDAS



S90.129.060
S90.129.060.WDAS
S90.129.060.R
S90.129.060.WDASR

S-PEGASUS-90



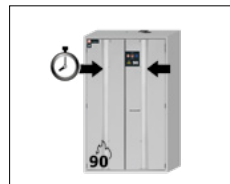
S90.129.120.WDAC



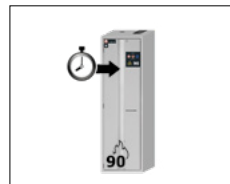
S90.129.060.WDAC
S90.129.060.WDACR



S90.196.060.FDAS
S90.196.060.FDASR
S90.196.060.MH.FDAS
S90.196.060.MH.FDASR
S90.196.060.075.FDAS
S90.196.060.075.FDASR



S90.196.120.FDAC
S90.196.120.MV.FDAC



S90.196.060.FDAC
S90.196.060.FDACR
S90.196.060.075.FDAC
S90.196.060.075.FDACR

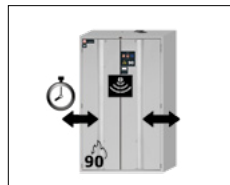
S-PHOENIX Vol.2-90



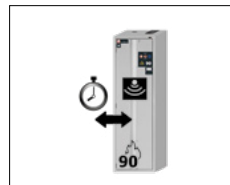
S90.196.120.FDAS
S90.196.120.MV.FDAS



S90.196.090.FWAS



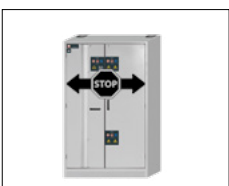
S90.196.120.FDAO



S90.196.060.FDAO
S90.196.060.075.FDAO

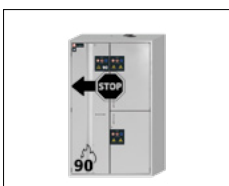


K-PHOENIX-30



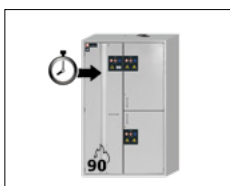
K30.197.120.MV.FWAS
K30.197.120.MC.FWAS

K-PHOENIX-90



K90.196.120.MFFWAS
K90.196.120.MC.FWAS

K-PHOENIX Vol.2-90



K90.196.120.MFFWAC
K90.196.120.MC.FWAC



XL-CLASSIC-90



XL90.222.155.WDAS



XL90.222.110.WDAS



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email: service asecos.com

YOUR PERSONAL DOCUMENTATION TO THE asecos SAFETY CABINET

Dear Customer,

you have made a decisive investment in safety for your company by purchasing this asecos safety storage cabinet. You now own an innovative product made of top-quality materials guaranteeing the highest quality standards.

asecos safety storage cabinets have complete authorisation documents. We archive the authorisation documents for every individual cabinet, keeping them ready for you should you ever need them (e.g. for a works inspection or similar). Simply request them using this form.

Tear of or copy that page and return to us by fax with your address and serial number of the cabinet on it.

Yours sincerely
asecos GmbH

Contact

Company		
<input type="text"/>		
Street	Postal code	Town
<input type="text"/>	<input type="text"/>	<input type="text"/>
Name of contact person		
<input type="text"/>		
email	Phone No.	
<input type="text"/>	<input type="text"/>	
Serial numbers of safety storage cabinets		
<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>

OPERATING INSTRUCTIONS

Dear customer,

Thank you very much for purchasing a safety storage cabinet from our company, with which you have made a decisive investment in the safety within your company. Our safety storage cabinets make the storage of hazardous materials at the workplace safe and convenient for you.

Please read these operating instructions very carefully. Get to know the advantages and simple operability of our safety storage cabinets in detail. This simplifies the daily handling of hazardous materials for you.

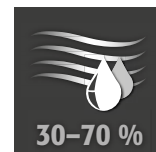
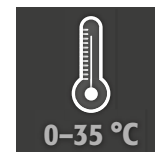
Many thanks
Your asecos team

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1.1. GENERAL SAFETY NOTES

- Observe applicable statutes and regulations, and the notes in these operating instructions, when handling hazardous materials
- Work on the electrical system is to be carried out only with the power turned off and only by qualified electricians – refer here to the regulations of the local electricity supply company.
- The on-site installation conditions are to be observed (e.g. bolting the cabinets to the building).
- The instructions of the supervisory engineering department must be followed.
- Observe accident prevention regulations and workplace ordinance
- **Ensure that the necessary safety checks are only carried out by authorised staff using original spare parts**
- Only use the cabinet after having been properly instructed; access is to be forbidden to unauthorised persons.
- The pivoting area of the doors is to be kept free at all times; doors/drawers are to be kept closed
- By assigning trained/authorised technical personnel you can prevent the malfunctions, damage and corrosion damage that result from inappropriate transport.
- Observe the upper limits for stored quantities, loading etc.
- Containers with a volume larger than that of the bottom collecting sump may not be placed inside the cabinet; spilt hazardous materials are to be collected immediately and removed
- Vessels containing aggressive chemicals (acids and alkalis) are to be kept in special cabinets for acids and alkalis or on shelves for acids and alkalis
- To avoid explosive atmospheres and harmful vapours, sufficient technical ventilation is strongly recommended. Please observe the instructions for connection to an exhaust air system.
- Before storing such materials, check that the cabinet's surface is resistant to the chemicals.
- Before the initial commissioning, the safety storage cabinet is to be examined by the user for possible damage.

Set-up requirements



1.2. GUARANTEE

The guarantee for this product is agreed between you (the customer) and your dealer (the seller). As the manufacturer, asecos guarantees the products listed in the operating instructions for a period of 24 months from the date of delivery. All model safety equipment are subject to a compulsory annual inspection by specialised staff authorised by the manufacturer. Otherwise the customer's guarantee claim against the manufacturer expires.

1.3. CABINET DETAILS

A complete overview of the models can be found at the start of the operating instructions.

Cabinet data: logbook (included with the cabinet)

Technical drawing: see appendix

Technical data: table in appendix

S-LINE and XL-LINE

All cabinets are used for the safe, passive storage of flammable liquids in work rooms in accordance with applicable national regulations. The models are tested, certified and marked according to the requirements of **EN 14470-1**.

K-LINE

The left compartments of the cabinets are used for the safe, passive storage of flammable liquids in work rooms in accordance with applicable national regulations and are tested, certified and marked in accordance with the requirements of **EN 14470-1**. The right compartments of the cabinets are used for the separate storage of aggressive, non-flammable hazardous substances (e.g. acids and alkalis)

Model versions .MH/.MV:

Cabinet interior with vertical or vertical and horizontal partition. Enables the separate storage of hazardous substances in a safety cabinet in two or four compartments. **Please note:** the separate storage of different hazardous substances in the safety cabinet takes place without taking into account other fire protection requirements.

1.4. MARKING AND SYMBOLS ON THE CABINET

Various stickers with different symbols are attached to the cabinet. An explanation of the individual symbols and illustrations is provided below.



1 Prohibition sign: No open flame



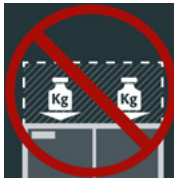
2 Mandatory sign: Refer to instruction manual/booklet



3 Mandatory sign: Keep doors closed



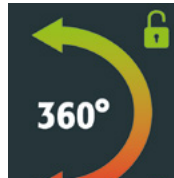
4 Recommendation: Connection to a technical ventilation system is recommended.



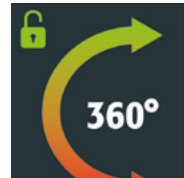
5 Load is prohibited: No additional cabinet may be placed on the cabinet ceiling.



6 Load permitted: An additional cabinet may be placed on the cabinet ceiling.



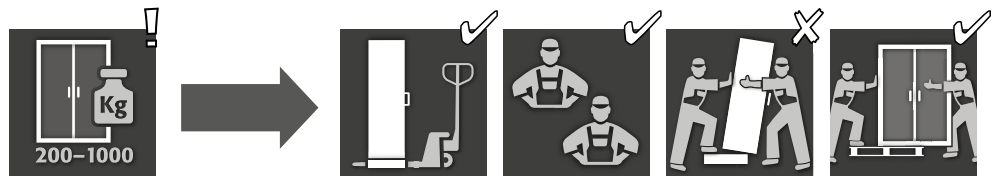
7 On the left-hand door: opening and closing direction for turning the key.



8 On the right-hand door: opening and closing direction for turning the key.

2. TRANSPORT

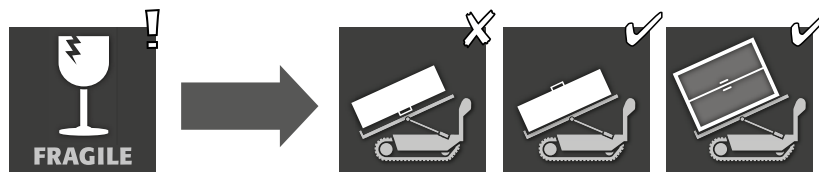
2.1. GENERAL FACTS



CAUTION:

Transport the cabinet in an upright position on a pallet truck, tied and secured against slipping, until the final place of installation is reached. The transport locks in the door joints may only be removed directly at the place of installation! Inappropriate transport can lead to concealed damage to the fire protection insulation! We can only guarantee the necessary quality if the cabinet is transported to the place of its use by our specially trained staff.

2.2. TILTING THE CABINET



CAUTION:

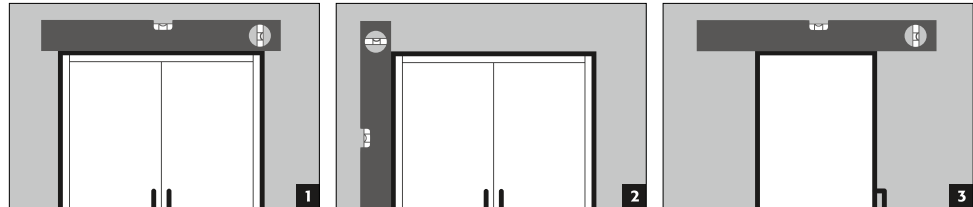
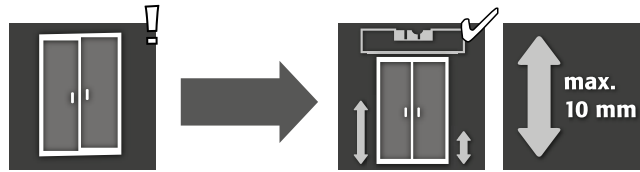
Tilting the cabinet may only be done without jolts!



ATTENTION XL-LINE

XL-LINE cabinets may only be transported standing up. It is forbidden to tilt the cabinet!

3.1. ALIGNMENT OF THE CABINETS



CAUTION:

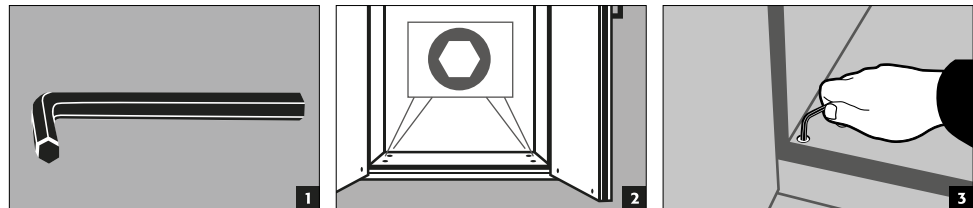
Door elements must not scrape against the fire prevention seals in the fold of the door when opening and closing! Doors with an automatic closing mechanism must close automatically from every position and the lock must be able to lock!



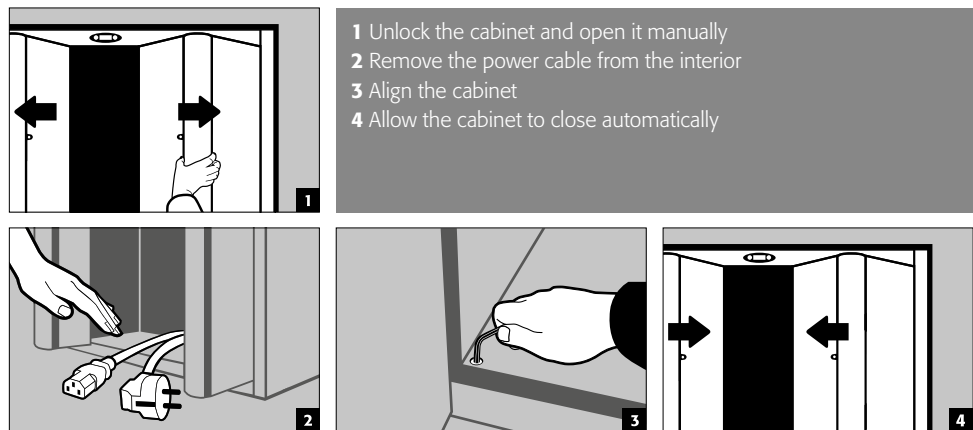
NOTE

If the distance between door and floor is greater than 40 mm and less than 120 mm, appropriate door panels can be used to avoid possible crushing hazards in the foot area. The matching panels for the cabinet model can be requested free of charge at service@asecos.com.

**S-LINE
K-LINE**

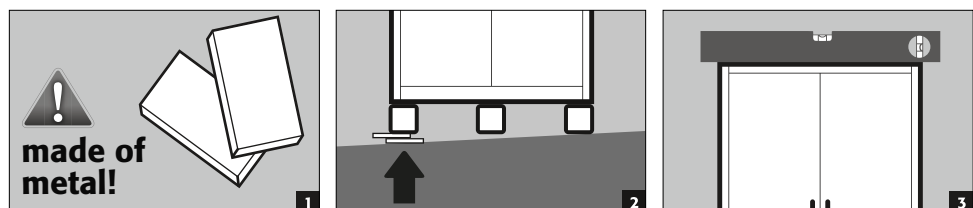


S-PHOENIX touchless-90



- 1 Unlock the cabinet and open it manually
- 2 Remove the power cable from the interior
- 3 Align the cabinet
- 4 Allow the cabinet to close automatically

XL-LINE



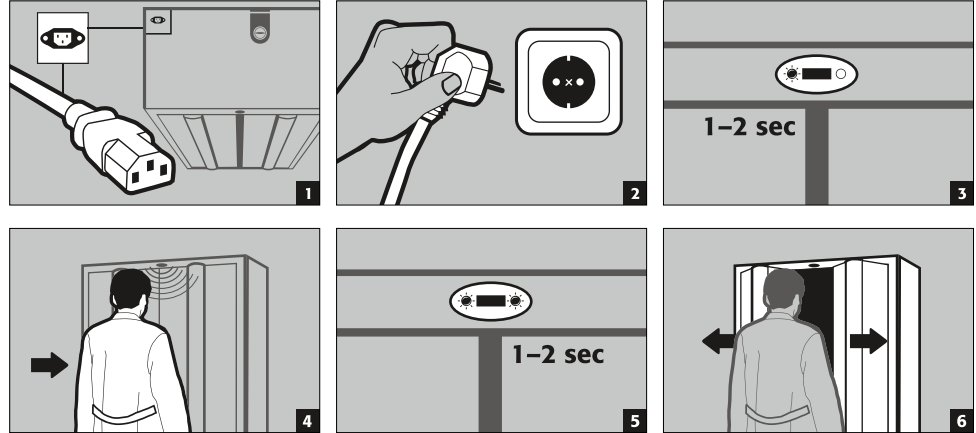
3.2. COMMISSIONING

- Before putting into operation for the first time, the user must carry out an examination of the safety storage cabinet for possible damage, such as defective or loose sealing elements, correct alignment and perfect functioning of the door elements.
Use the cabinet and accessories only if they are in an orderly condition.

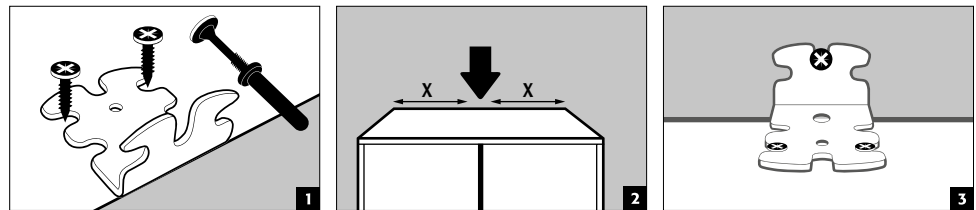
3.3. CONNECTION TO THE POWER SUPPLY

Accessories: 5 m low-temperature IEC power cable including earthed mains plug

S-PHOENIX touchless-90



3.4. ANTI-TILT DEVICE

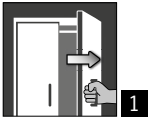
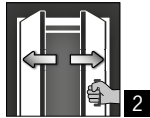
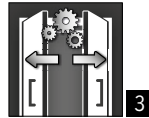


CAUTION

If the cabinets are equipped with more than 6 drawers or more than one heavy-duty drawer, they must be securely attached to the building wall using the tilt protection provided. Depending on the nature of the wall, suitable fastening material, which may differ from the scope of delivery, must be selected

4. OPENING AND CLOSING MECHANISMS

4.1. OPENING THE CABINET



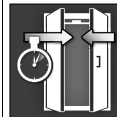


			
S-LINE			
S-CLASSIC-90	✓		
with door version WDAS	✓		
S-PEGASUS-90	✓	✓	
S-PHOENIX-90	✓		
S-PHOENIX Vol.2-90	✓	✓	
S-PHOENIX touchless-90			✓
K-LINE			
K-PHOENIX-30			
Left compartment	✓		
Right compartment	✓		
K-PHOENIX-90			
Left compartment	✓		
Right compartment	✓		
K-PHOENIX Vol.2-90			
Left compartment	✓		
Right compartment	✓		
XL-LINE			
XL-CLASSIC-90	✓		

1 Manual opening of the individual doors

2 For two-door cabinets: Manual opening of both doors with only one hand. The cabinet is equipped with AGT.

3 Automatic opening of the door by means of sensors.

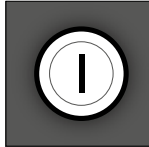

4.2. CLOSING THE CABINET

						
				A	B	
S-LINE						
S-CLASSIC-90		✓				✓
with door version WDAS		✓				✓
S-PEGASUS-90		✓	✓			✓
S-PHOENIX-90		✓				✓
S-PHOENIX Vol.2-90		✓	✓			✓
S-PHOENIX touchless-90					✓	✓
K-LINE						
K-PHOENIX-30						
Left compartment		✓				✓
Right compartment		✓				✓
K-PHOENIX-90						
Left compartment		✓				✓
Right compartment	✓					✓
K-PHOENIX Vol.2-90						
Left compartment		✓	✓			✓
Right compartment	✓					✓
XL-LINE						
XL-CLASSIC-90		✓				✓

- 1** Doors closable only by hand
- 2** Doors permanently self-closing or self-closing after release of the doors from the arresting system
- 3** Automatic door closing
 - A** Automatic door closing system TSA
 - B** By sensor detection

- Other features**
- 4** Doors with open-arrest system
 - 5** **Thermal release:** in the case of fire the doors close automatically

4.3. LOCKING

	 1	 2
S-LINE		
S-CLASSIC-90		✓
S-PEGASUS-90		✓
S-PHOENIX-90		✓
S-PHOENIX Vol.2-90		✓
S-PHOENIX touchless-90		✓
K-LINE		
K-PHOENIX-30		
Left compartment	✓	
Right compartment	✓	
K-PHOENIX-90		
Left compartment		✓
Right compartment	✓	
K-PHOENIX Vol.2-90		
Left compartment		✓
Right compartment	✓	
XL-LINE		
XL-CLASSIC-90	✓	
1 Safety cylinder 2 CYLINDER LOCK (suitable for master key systems)		



ATTENTION:

The owner/user must ensure that all doors are kept closed whenever the contents of the cabinet are not being accessed. In general, it must be noted that the cabinets do not possess an emergency unlocking facility. This means that persons trapped inside the cabinet cannot free themselves!

4.4. AUTOMATIC DOOR CLOSING SYSTEM (TSA)



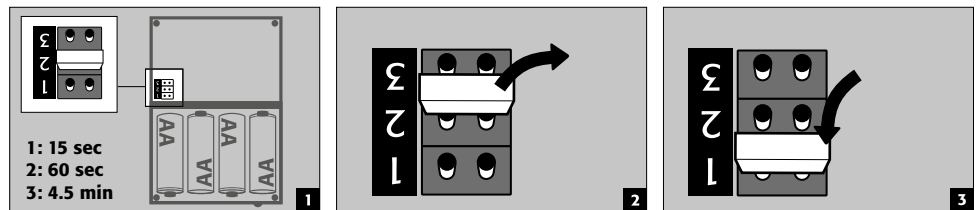
CAUTION:

The doors close automatically. The time interval until the doors close can be set individually by means of a jumper (preset: 60 seconds). Do not push the doors to close by hand, since this can lead to damage to the mechanism!

Sequence



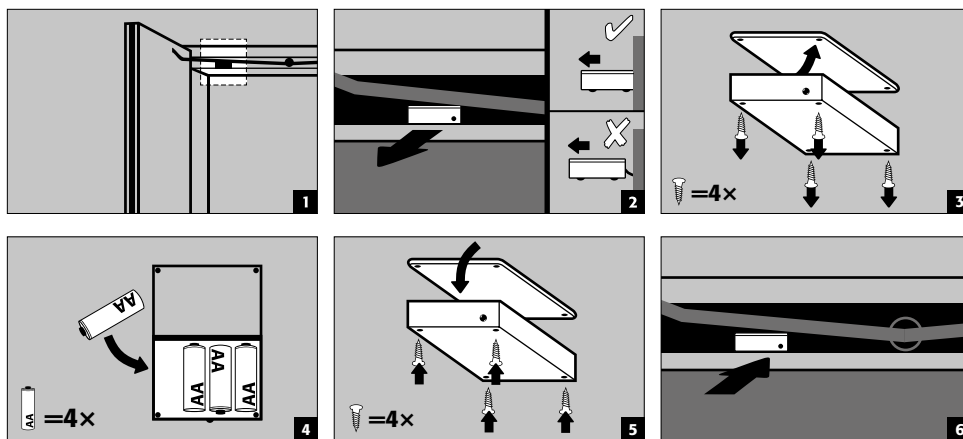
Changing the closing times with the aid of the jumper



CAUTION:

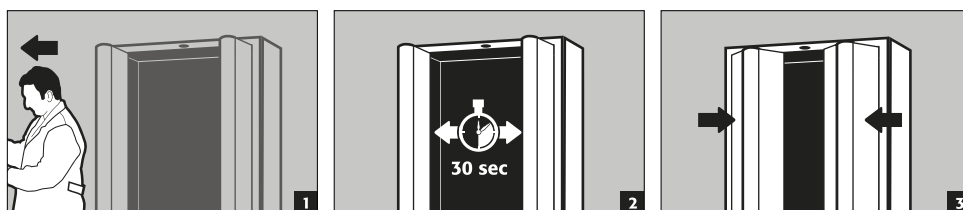
The electrical cable on the housing may not come into contact with the locking linkage of the cabinet!

Battery replacement

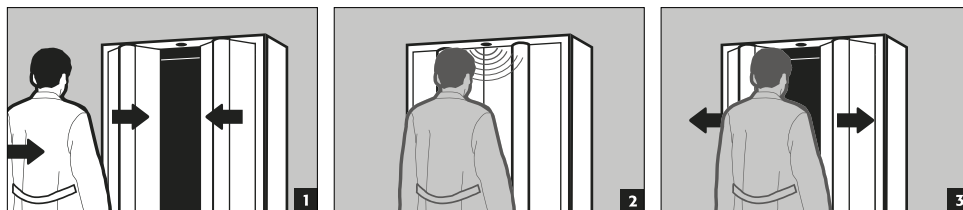


4.5. AUTOMATIC DOOR CLOSING SYSTEM (SENSOR)

S-PHOENIX touchless-90



Entering the sensor range during the closing movement



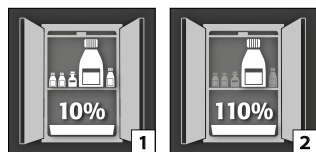
CAUTION: The closing of the doors takes place purely mechanically and only with the very low forces of the closing spring. Reaching inside the cabinet during the closing process is therefore harmless and the risk of injury is ruled out.

5. INTERIOR FITTINGS



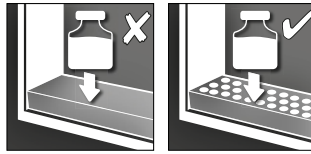
CAUTION: Loose parts (e.g. insertable sumps) must always be fully installed/inserted in order to ensure secure closing of the cabinet doors in case of fire.

5.1. BOTTOM COLLECTING SUMP



According to EN 14470-1: The bottom collecting sump must be able to hold a minimum volume of 10 % of all the containers stored in the cabinet [1] or at least 110 % of the volume of the largest single container [2], whichever of these volumes is larger.

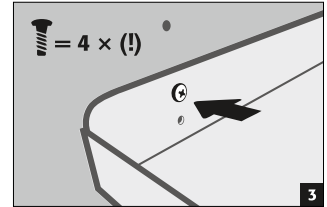
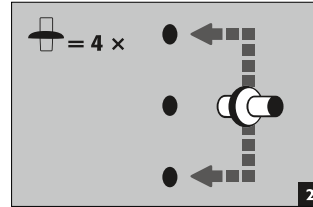
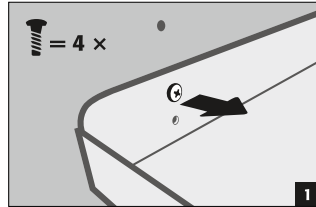
5.2. PERFORATED INSERT



For use as a storage level in the bottom collecting sump

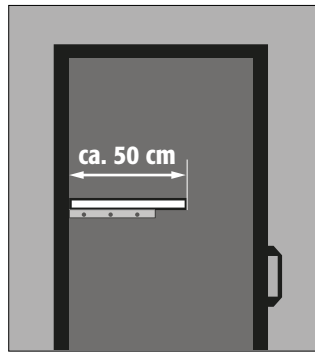
5.3. SHELVES (HEIGHT-ADJUSTABLE)

S-LINE
K-LINE (left compartment)



5.4. SHELF (PERMANENTLY MOUNTED)

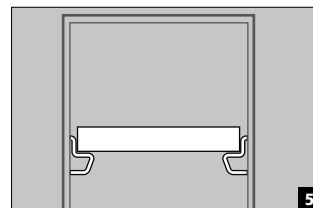
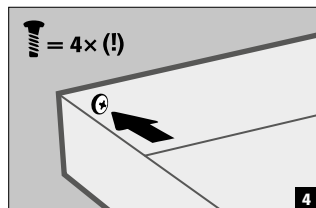
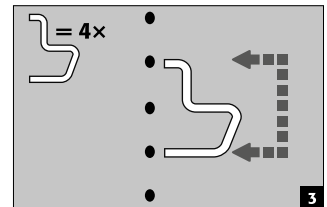
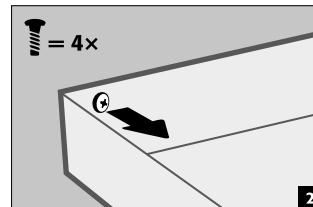
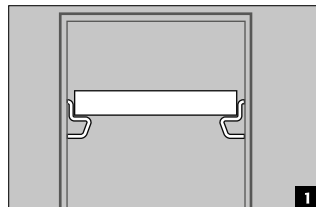
XL-LINE



- The installation of the shelf is done at the factory in a fixed position.
- The assembly is carried out with additional support brackets on the side walls and the rear wall.
- The cabinets have no grid holes on the side walls and the rear wall.
- If a position other than the factory-set position is required on site, the support brackets must be repositioned at the desired height and then screwed again accordingly.

5.5. TRAY SHELVES (HEIGHT-ADJUSTABLE)

S-LINE
K-LINE (left compartment)



5.6. METAL FREE TRAY SHELVES

Applies to cabinet models S-LINE and K-LINE type 30 (compartment on the right, for flammable liquids)

- Suitable for storing small quantities of flammable, slightly aggressive hazardous substances
- The tray shelf is installed in the cabinet in fixed positions by the manufacturer. The PP plastic sump is placed on the shelf and secured against pulling out.

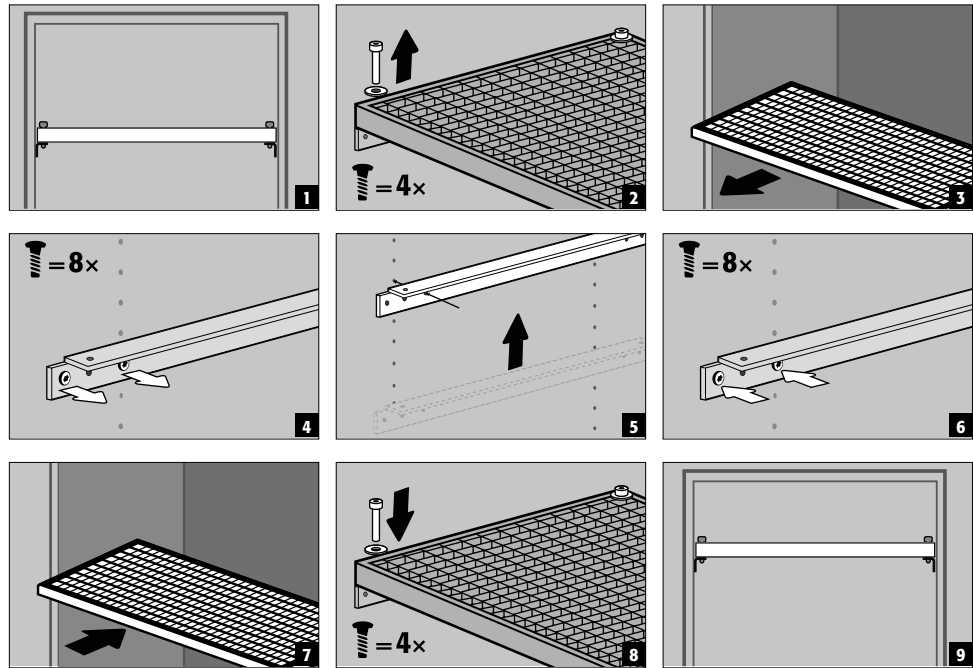


CAUTION:

The height of metal-free tray shelves in safety storage cabinets may only be adjusted on site by authorized asecos employees, as further pre-assembly work is necessary for this!

5.7. GRID SHELVES (HEIGHT ADJUSTABLE)

S-LINE

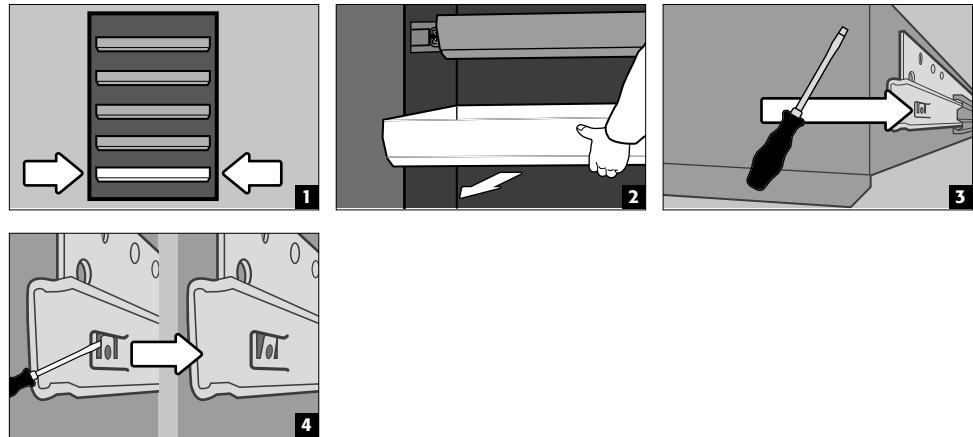


5.8. DRAWERS



S-LINE models with carcass width 120 or 90 cm (version without dividing wall)
 Before first use and loading, the bottom drawer must be additionally secured against unintentional removal.

Securing the lowest drawer against possible lifting out

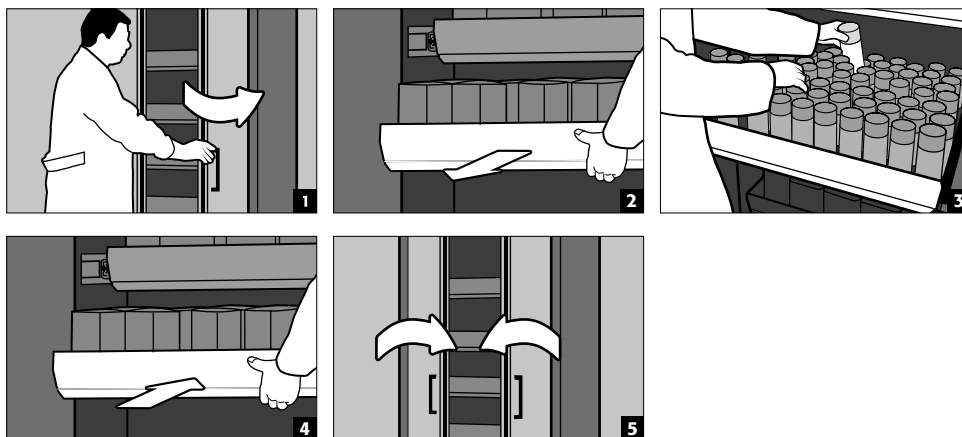


CAUTION:
 Depending on the number, the drawers are installed at the factory in fixed positions in the cabinet. Subject to technical feasibility, special classifications are possible at an additional cost.

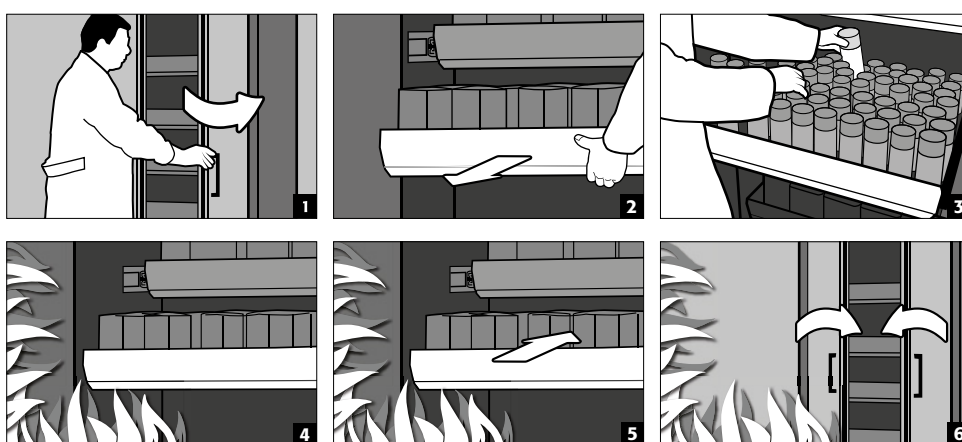
2-door cabinet models S-LINE

- **Standard operation:** Pull the drawer out of the cabinet by hand and push it in again
- **Event of fire:** thermal release, pulled out drawer is automatically drawn into the cabinet

Normal operation



Event of fire



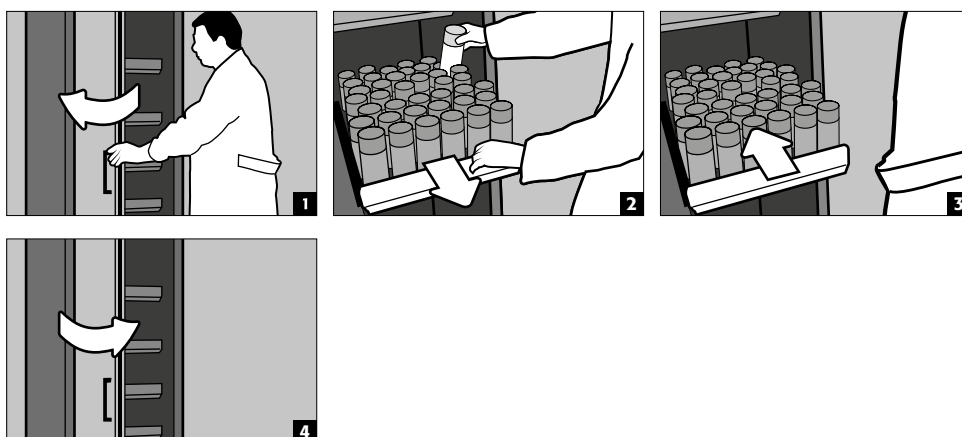
CAUTION:

When a second heavy-duty drawer has been installed, the cabinets have to be secured to the building wall using the enclosed material to prevent them from tipping over. The choice of fasteners (dowels and screws) may have to be adapted to the structural conditions on site if necessary.

1-door cabinet models S-LINE

2-door cabinet models K-LINE (left compartement, for flammable liquids)

- **Standard operation:** Pull the drawer out of the cabinet by hand. As soon as the drawer is released, it automatically retracts back into the cabinet with a time delay.



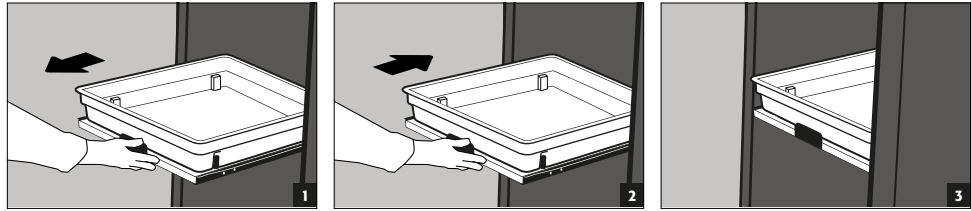
CAUTION:

The height of the drawers in safety storage cabinets may be adjusted only by authorised asecos employees, since the safe retraction of the drawers in case of fire must be guaranteed!

5.9. PULL-OUT SHELVES (MODELS K-LINE)

Right compartment (for inflammable hazardous materials – acids and bases)

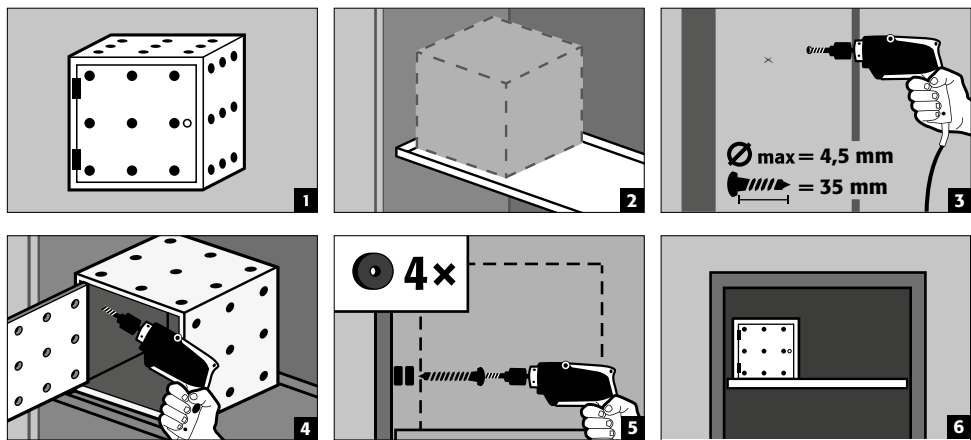
- Pull-out shelves are permanently installed in the cabinet and have a pull-out protection.
- They have to be pushed into the cabinet by hand after us.
- Cabinets with pull-out shelves must be attached to the wall using an anti-tilt device (see 3.2)!



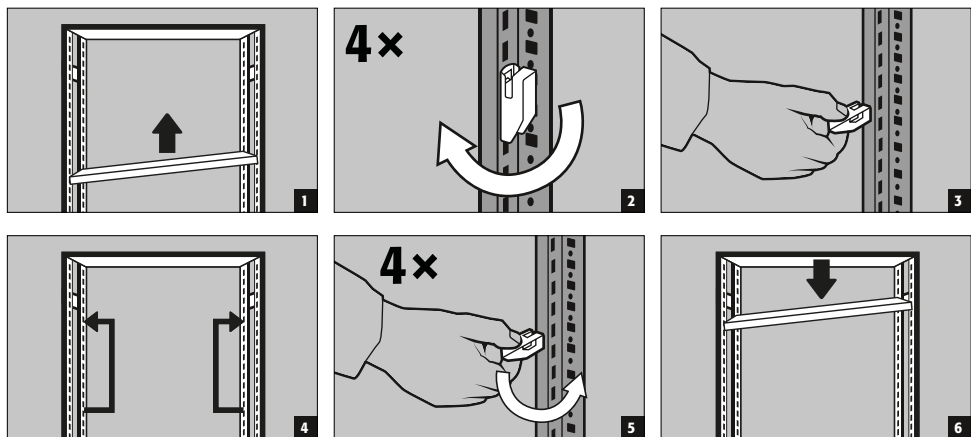
5.10. STORAGE BOX

Separately lockable, for the separate storage of small quantities of chemicals in the cabinet.

- The storage box must be placed on a shelf and is screwed to the side wall at the factory. The top shelf in the cabinet is used as standard for installation.



5.11. RACK SYSTEM FOR XL-LINE



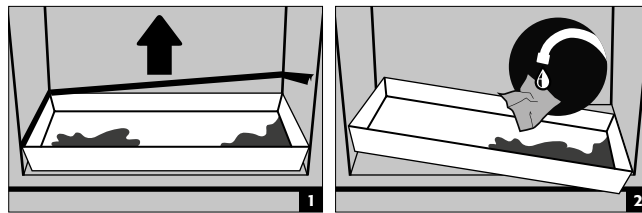
**CAUTION:**

Load capacity shelf (depth 600 and 800 mm) = 240 kg
 Bay load (shelf depth 600 mm and 800 mm) = 1600 kg

The specified maximum load capacity for shelves [Q] apply to an evenly distributed load.
 The sum of the compartment loads [ΣQ] in a shelf bay must be less than or equal to the specified bay load [Q_{max}].

5.12. LEAKS**PLEASE NOTE**

Liquid in the bottom collecting sump / drawer and in the sump of pull-out tray, must be taken up immediately and using suitable means. The choice of the means is your own responsibility, depending on the leaked chemical.

**6. STORAGE****For passive storage of flammable liquids in work rooms (see point 1.3)**

- Vessels containing aggressive chemicals (acids/alkalis) are to be kept in special cabinets for acids and alkalis or on shelves for acids and alkalis.

**CAUTION:**

Stored corrosive liquids can impair the function
 › of the shut-off devices for the supply and exhaust air
 › of self-closing in the event of fire

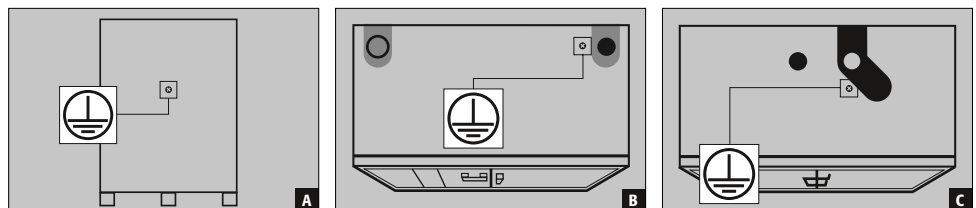
6.1. FIRE-PROTECTED LEAD-THROUGH

The optionally available fire protection lead-through enables pipelines, hoses and cables to be carried through in compliance with the tested fire resistance of the safety cabinet.

Please do not hesitate to contact us for information on the permissible lead-through areas, maximum permissible diameter of the cables and further information.

7. EARTHING

An earth connection may be necessary, depending on the customer-specific use of the safety storage cabinet. The decision regarding this is taken on the basis of a risk analysis by the customer.



A Rear section: XL-LINE

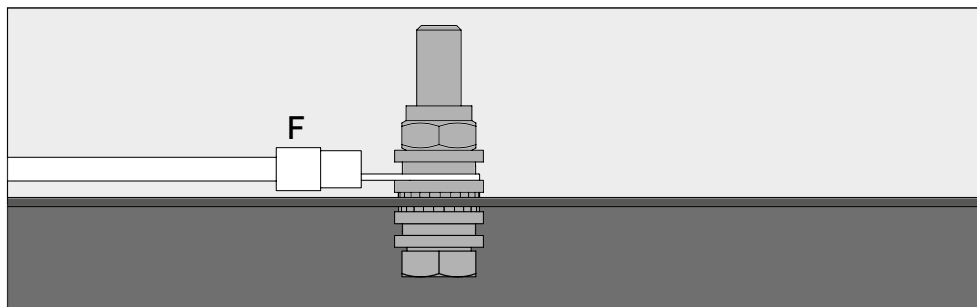
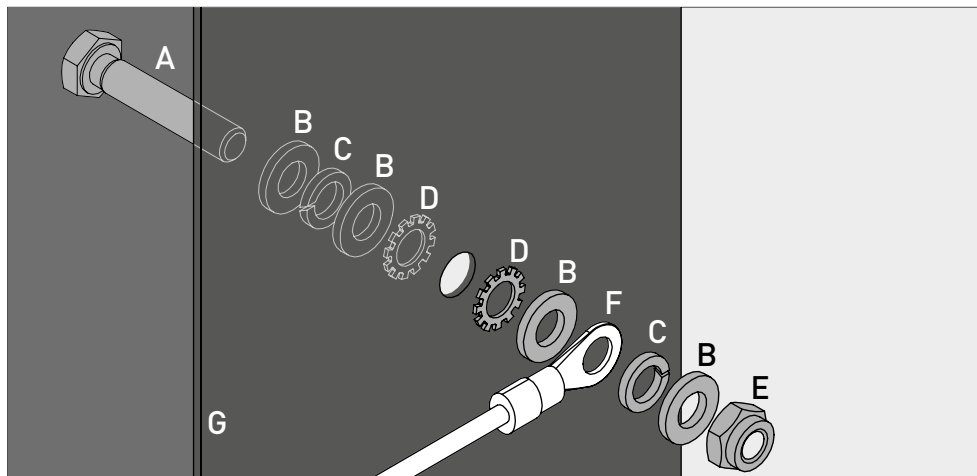
B Top section: K-PHOENIX-30

C Top section: S-LINE 90 minutes | K-LINE 90 minutes

7.1. GROUND CONNECTION

All models have an earthing connection. The cabinet body (side and top panels) is metallically conductively connected to each other via the earthing connection. The earthing connection is prepared for the creation of the potential equalisation on site.

- **XL-LINE:** factory assembled
- **K-LINE / S-LINE 90:** is enclosed with the product and must be mounted on site at the appropriate location on the headboard



Legende	
A 1 × screw M6×30	E 1 × nut with clamping part
B 4 × washer Ø 6,4	F earthing wire with ring cable lug (on-site connection)
C 2 × spring washer Ø 6,4	G metal part of the safety storage cabinet
D 2 × serrated lock washer Ø 6,4	

7.2. GROUNDING PREMIUM

Only available in combination with cabinet for factory assembly.

Optionally, the wardrobes are equipped as follows for an additional charge:

S-LINE

Additional metallic conductive connection of the door panels, door handles and baseboard with the cabinet body

- Models with hinged door(s): Article 39559 (HFE.34091)
- Models with folding door(s): Article 39554 (HFE.34090)

K-LINE

Additional metallic conductive connection of the door panels, door handles and baseboard with the cabinet body

- All models: item 39554 (HFE.34090)

XL-LINE

Additional metallic conductive connection of the door panels, baseboard and, if present, the transport plinth to the cabinet carcass.

- All models: item 39617 (HFE.34146)

7.3. GROUNDING THE INTERIOR

Optionally, the cabinets can be equipped with an earthing connection for the interior fittings at an extra charge.

S-LINE

- Earthing lug inside with connection to the central earthing connection point on the cabinet ceiling.
- incl. one earthing lead incl. pick-up terminal - item 28056 (HFE.11051)
- Additional earthing cable incl. tapping terminal for earthing another storage level - Article 33987 (HFE.29665)

K-LINE

- Earthing lug in the left compartment inside with connection to the central earthing connection point on the cabinet ceiling.
- incl. one earthing lead incl. pick-up terminal - item 28056 (HFE.11051)
- Additional earthing cable incl. tapping terminal for earthing another storage level - Article 33987 (HFE.29665)

XL-LINE

- The cabinets are equipped as standard with up to three earthing leads incl. tap terminal in the interior. The earthing cables are factory-fitted at the earthing connection point on the rear wall of the cabinet.

8. VENTILATION



CAUTION

The fire protection valves near the supply and extraction air connections are safety and maintenance-relevant components.

In order to check the correct operation or to replace a defective element, please ensure that flexible connecting hoses or sliding pieces are used to connect to an extraction system in order to ensure simple dismantling and re-mounting of the extraction air connection.

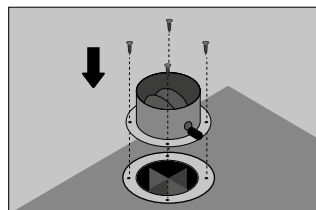
- If installed on an exhaust system, a check must be carried out to ensure proper connection to the system (e.g. using a smoke tube)
- All models can be connected to a technical exhaust system via the exhaust connector. Please see the respective applicable national regulations for the specified air recirculation rate, maximum pressure losses and exhaust air ducts.



CAUTION:

In general these models can be operated without technical ventilation. The direct environment of the cabinet can be an explosive zone in this case. If the cabinet is to be operated without an exhaust connection, the user must attach a marking to it. With some models the supply and exhaust connectors are not pre-mounted. They are included with the cabinet and **must be screwed** to the openings on the top section.

8.1. FIRE PROTECTION VALVES XL-LINE



After installation of the safety cabinet at the final point of use the fire protection valves (enclosed in the cabinet) which have been demounted to avoid transport damages have to be fixed on the air inlet and outlet again. The valves have also to be mounted even if there will be no technical ventilation of the safety cabinet! For mounting of the valves (see picture) position them on the air inlet and outlet and use the screws enclosed (4 pieces/valve) to fix them on the cabinet top (do not remove the fire protection sealings already installed in the air inlet and outlet!

9. FIRE - DISPOSAL



9.1. OPENING THE CABINET AFTER THE FIRE



ATTENTION:
Only authorised personnel (e.g. fire brigade) may open the cabinet!
 Depending upon the duration of the fire an ignitable vapour/air mixture may have formed; therefore remove all sources of ignition within a 10 metre radius of the cabinet before opening it.
 Use only spark-free tools !
 Open the cabinets with extreme caution !

9.2. DISPOSAL



The models can be disposed of once they have been dismantled and the materials sorted.

10. SAFETY CHECKS

10.1. IN GENERAL

As safety equipment the cabinets have to be checked for safety at least once per year. The next checking date can be taken from the service sticker on the outside of the door. This annual check can be carried out with the necessary care, and for securing your warranty claims in the case of fire, only by an authorised asecos employee (refer also to our service brochure regarding this).

In addition, we recommend that you carry out a daily and monthly functional check:

Daily functional check

- applies to the spill containment sumps (collect and remove any leakages)

Monthly functional check

- perfect function of the doors:
 - hinges
 - locking system
 - door closer
 - door open arrest system
- correct seating and condition of the fire protection seals

Case of damage

In case of damage please contact your dealer in order to have the cabinet repaired using original spare parts. The cabinets can be cleaned with a mild household cleaner and a soft cloth.

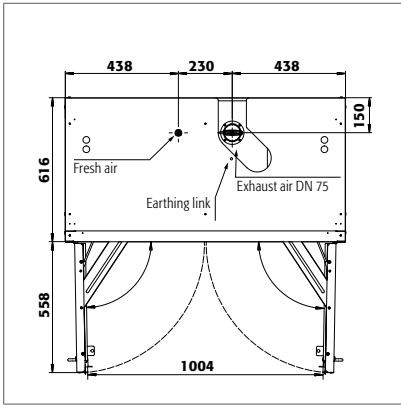
10.2. WEARING PARTS

Various safety-related components of the safety storage cabinet are wearing parts and must be replaced at regular intervals by asecos Service. A list of the parts affected for your safety cabinet is available on request from service@asecos.com.



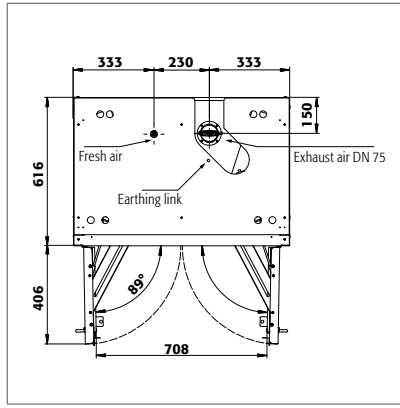
CONTACT:
 In the case of defects or complaints about our products (within and also after the warranty period), and for requesting safety checks or taking out a service contract, please contact our service hotline on:
 Tel: +44 1785 22 70-90 info@asecos.co.uk

11. TECHNICAL DRAWING



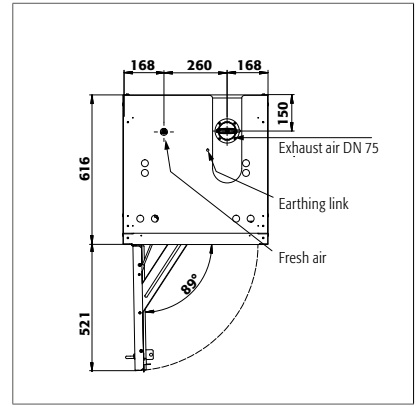
S90.196.120
S90.196.120.MV.WDAS
S90.129.120.WDAS

S90.196.120.WDAS
S90.129.120
S90.129.120.WDAC



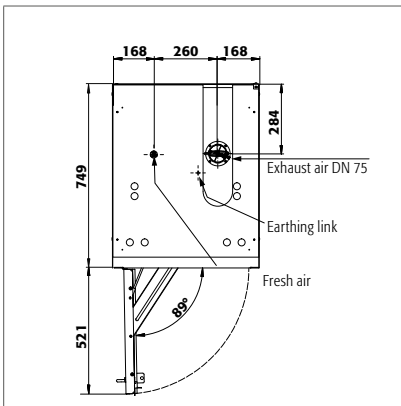
S90.196.090

S90.196.090.WDAS



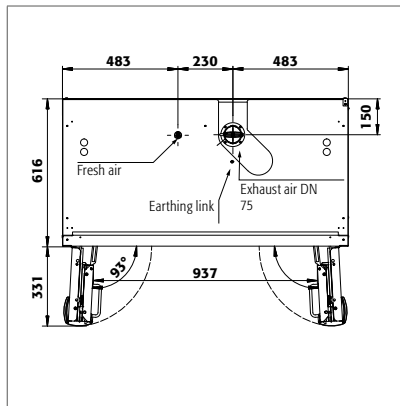
S90.196.060
S90.196.060.R
S90.196.060.MH.WDAS
S90.129.060
S90.129.060.R
S90.129.060.WDAC

S90.196.060.WDAS
S90.196.060.WDASR
S90.196.060.MH.WDASR
S90.129.060.WDAS
S90.129.060.WDASR
S90.129.060.WDACR



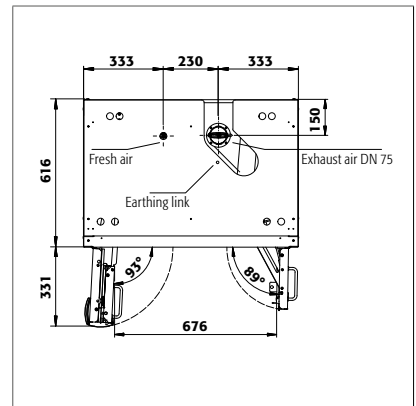
S90.196.060.075.WDAS

S90.196.060.075.WDASR

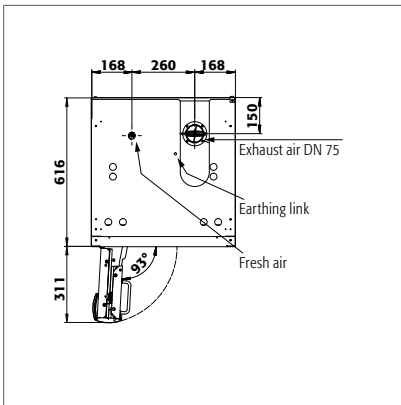


S90.196.120.FDAS
S90.196.120.FDAC
S90.196.120.FDAO

S90.196.120.MV.FDAS
S90.196.120.MV.FDAC

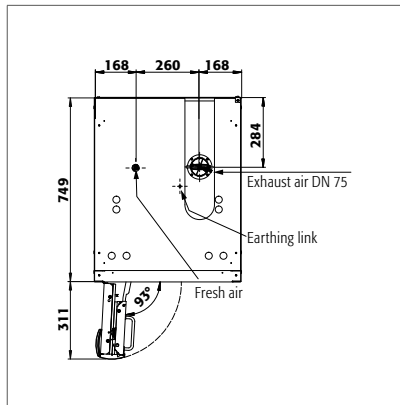


S90.196.090.FWAS



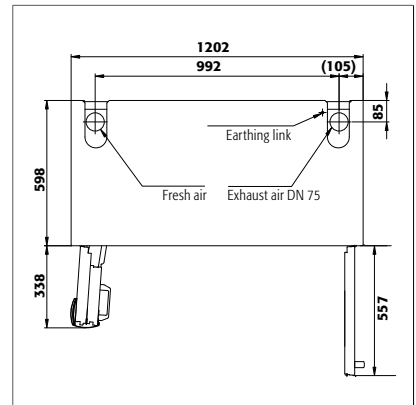
S90.196.060.FDAS
S90.196.060.MH.FDAS
S90.196.060.FDAC
S90.196.060.FDAO

S90.196.060.FDASR
S90.196.060.MH.FDASR
S90.196.060.FDACR



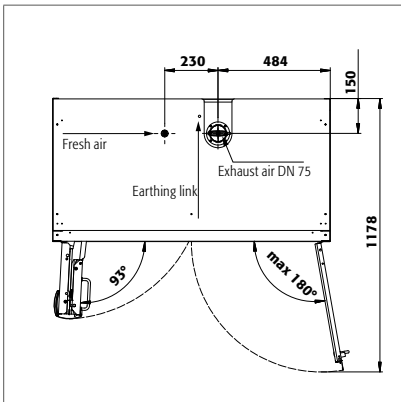
S90.196.060.075.FDAS
S90.196.060.075.FDAC
S90.196.060.075.FDAO

S90.196.060.075.FDASR
S90.196.060.075.FDACR



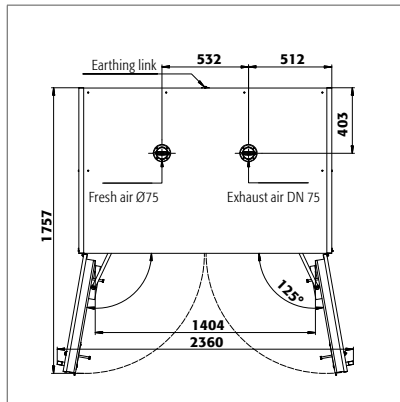
K30.197.120.MC.FWAS

K30.197.120.MV.FWAS

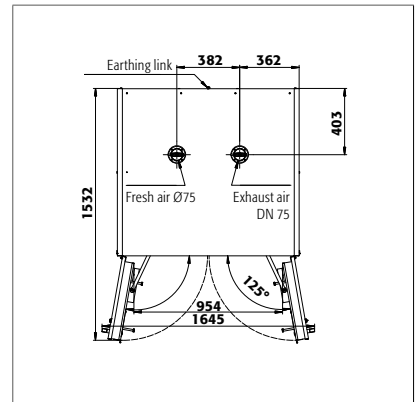


K90.196.120.MF.FWAS
K90.196.120.MF.FWAC

K90.196.120.MC.FWAS
K90.196.120.MC.FWAC



XL90.222.155.WDAS



XL90.222.110.WDAS

12.1. TABLE WITH TECHNICAL DATA

The surface load is calculated by dividing the total weight of the cabinet (empty cabinet plus load) by its loading area. This is calculated by multiplying the width of the cabinet by the depth (sum of the depth of the cabinet and 1000 mm of space in front of it). The specification of the surface load in the operating instructions is a theoretical value, as the specification of the load represents the maximum permissible value for the cabinet construction. The calculation of the individual surface load must always be based on the actual load (weight of the interior fittings and weight of the stored containers).

EXAMPLE of the theoretical surface load calculation model S90.196.120:

Weight of cabinet	420 kg
Load:	600 kg
Working area:	1200 mm × (616+1000) mm
Calculation:	$\frac{420+600 \text{ kg}}{1,2 \text{ m} \times 1,616 \text{ m}} = \frac{1020 \text{ kg}}{1,939 \text{ m}^2} = 526 \text{ kg}$

Key for "Technical data" table

- | | |
|---------------------------------|--|
| 1 Dimensions W x D x H external | 5 Maximum load (kg) |
| 2 Internal dimensions W x D x H | 6 Distributed load (kg/m ²) |
| 3 type | 7 Volume with 10 times air change (m ³ /h) |
| 4 Weight of empty cabinet(kg) | 8 Differential pressure (10 times air change EK5/AK4) (Pa) |

S-LINE								
	1	2	3	4	5	6	7	8
S90.196.120	1196 x 616 x 1968 mm	1050 x 524 x 1742 mm	90	420	600	528	10	5
S90.196.120.WDAS	1196 x 616 x 1968 mm	1050 x 524 x 1742 mm	90	420	600	528	10	5
S90.129.120	1196 x 616 x 1298 mm	1050 x 524 x 1072 mm	90	270	600	450	6	5
S90.129.120.WDAS	1196 x 616 x 1298 mm	1050 x 524 x 1072 mm	90	270	600	450	6	5
S90.129.120.WDAC	1196 x 616 x 1298 mm	1050 x 524 x 1072 mm	90	270	600	450	6	5
S90.196.120.FDAS	1196 x 616 x 1968 mm	1050 x 524 x 1742 mm	90	420	600	528	10	5
S90.196.120.FDAC	1196 x 616 x 1968 mm	1050 x 524 x 1742 mm	90	420	600	528	10	5
S90.196.120.FDAO	1196 x 616 x 1968 mm	1050 x 524 x 1742 mm	90	420	600	528	10	5
S90.196.120.MV.WDAS	1196 x 616 x 1968 mm	all compartments: 450 x 524 x 1742 mm	90	515	600	576	8	5
S90.196.120.MV.FDAS	1196 x 616 x 1968 mm	all compartments: 450 x 524 x 1742 mm	90	515	600	576	8	5
S90.196.120.MV.FDAC	1196 x 616 x 1968 mm	all compartments: 450 x 524 x 1742 mm	90	515	600	542	8	5
S90.196.090	896 x 616 x 1968 mm	750 x 524 x 1742 mm	90	310	600	628	7	5
S90.196.090.WDAS	896 x 616 x 1968 mm	750 x 524 x 1742 mm	90	310	600	628	7	5
S90.196.090.FWAS	896 x 616 x 1968 mm	750 x 524 x 1742 mm	90	310	600	628	7	5
S90.196.060	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.WDAS	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.R	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.WDASR	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.129.060	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.129.060.WDAS	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.129.060.R	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.129.060.WDASR	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.129.060.WDAC	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.129.060.WDACR	596 x 616 x 1298 mm	450 x 524 x 1072 mm	90	170	600	799	3	5
S90.196.060.FDAS	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.FDASR	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.FDAC	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.FDACR	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.FDAO	596 x 616 x 1968 mm	450 x 524 x 1742 mm	90	260	600	893	4	5
S90.196.060.MH.WDAS	596 x 616 x 1968 mm	top: 450 x 524 x 877 mm bottom: 450 x 524 x 845 mm	90	260	600	891	4	5
S90.196.060.MH.WDASR	596 x 616 x 1968 mm	top: 450 x 524 x 877 mm bottom: 450 x 524 x 845 mm	90	260	600	891	4	5
S90.196.060.MH.FDAS	596 x 616 x 1968 mm	top: 450 x 524 x 877 mm bottom: 450 x 524 x 845 mm	90	260	600	891	4	5
S90.196.060.MH.FDASR	596 x 616 x 1968 mm	top: 450 x 524 x 877 mm bottom: 450 x 524 x 845 mm	90	260	600	891	4	5
S90.196.060.075.WDAS	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.WDASR	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.FDAS	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.FDASR	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.FDAC	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.FDACR	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5
S90.196.060.075.FDAO	596 x 749 x 1968 mm	450 x 657 x 1742 mm	90	310	600	873	5	5

XL-LINE								
	1	2	3	4	5	6	7	8
XL90.222.155.WDAS	1555 x 1018 x 2324 mm	1386 x 864 x 1890 mm	90	1150	1000	685	24	15
XL90.222.110.WDAS	1105 x 1018 x 2324 mm	936 x 864 x 1890 mm	90	855	1000	832	17	15

K-LINE								
	1	2	3	4	5	6	7	8
K30.197.120.MV.FWAS	1202 x 598 x 1968 mm	left: 532 x 519 x 1691 mm right: 486 x 519 x 1691 mm	30	330	600	484	9	5
K30.197.120.MC.FWAS	1202 x 599 x 1968 mm	left: 532 x 519 x 1691 mm right: 486 x 519 x 1691 mm	30	345	600	492	9	5
K90.196.120.MF.FWAS	1197 x 617 x 1969 mm	left: 450 x 524 x 1742 mm top right: 491 x 542 x 862 mm bottom right: 491 x 542 x 862 mm	Left compartment 90	515	600	576	9	5
K90.196.120.MC.FWAS	1197 x 617 x 1969 mm	left: 450 x 524 x 1742 mm top right: 491 x 542 x 862 mm bottom right: 491 x 542 x 862 mm	Left compartment 90	515	600	576	9	5
K90.196.120.MF.FWAC	1197 x 617 x 1969 mm	left: 450 x 524 x 1742 mm top right: 491 x 542 x 862 mm bottom right: 491 x 542 x 862 mm	Left compartment 90	515	600	576	9	5
K90.196.120.MC.FWAC	1197 x 617 x 1969 mm	left: 450 x 524 x 1742 mm top right: 491 x 542 x 862 mm bottom right: 491 x 542 x 862 mm	Left compartment 90	515	600	576	9	5

12.2. TABLE WITH STORAGE CAPACITIES

Legend for "Storage capacities" table



Load capacity (kg) of storage levels









Retention capacity (ltr)






Maximum container volume in the cabinet (ltr)

S-LINE																						
Interior equipment	Load capacity (kg) of storage levels 1 shelf 2 tray shelf 3 metal-free tray shelf 4 grid as storage level								Retention capacity (ltr) 5 perforated insert 6 drawer 7 heavy-duty drawer 8 disposal drawer								Maximum container volume in the cabinet (ltr) 9 bottom collecting sump 10 metal-free bottom collecting sump					
	1	2	3	4	5	6	7	8	2	3	6	7	8	9	10	2	3	6	7	8	9	10
S90.196.120	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.196.120.WDAS	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.129.120	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.129.120.WDAS	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.129.120.WDAC	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.196.120.FDAS	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.196.120.FDAC	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.196.120.FDAO	75	150	50	120	75/135	60	100		33	33	29	66		33/55	33	30	30	26	60		30/50	30
S90.196.120.MV.WDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.120.MV.FDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.120.MV.FDAC	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.090	75	150	50		75	60	100		22/23,5	22	19	45		22/39,5	22	20/21	20	17	40,5		20/35,5	20
S90.196.090.WDAS	75	150	50		75	60	100		22/23,5	22	19	45		22/39,5	22	20/21	20	17	40,5		20/35,5	20
S90.196.090.FWAS	75	150	50		75	60	100		22/23,5	22	19	45		22/39,5	22	20/21	20	17	40,5		20/35,5	20
S90.196.060	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.WDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.R	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.WDASR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060.WDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060.R	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060.WDASR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060.WDAC	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.129.060.WDACR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.FDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.FDASR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10

S-LINE																						
Interior equipment		1 shelf						5 perforated insert						9 bottom collecting sump								
		2 tray shelf						6 drawer						10 metal-free bottom collecting sump								
		3 metal-free tray shelf						7 heavy-duty drawer														
		4 grid as storage level						8 disposal drawer														
																						
	1	2	3	4	5	6	7	8	2	3	6	7	8	9	10	2	3	6	7	8	9	10
S90.196.060.FDAC	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.FDACR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.FDAO	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.MH.WDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.MH.WDASR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.MH.FDAS	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.MH.FDASR	75	150	50		75	25		50	11,5/22	11	4,5		7,5	11/22/33	11	10/20	10	4		6,5	10/20/30	10
S90.196.060.075.WDAS						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.WDASR						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.FDAS						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.FDASR						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.FDAC						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.FDACR						25		50			5,5		4,5/10	22				5		4/9	20	
S90.196.060.075.FDAO						25		50			5,5		4,5/10	22				5		4/9	20	

XL-LINE															
Interior equipment		1 shelf				3 bottom collecting sump with rack									
		2 shelf for rack				4 bottom collecting sump with grid									
															
	1	2	3	4	1	2	3	4	1	2	3	4			
XL90.222.155.WDAS	75		240				66	235				60	213,5		
XL90.222.110.WDAS	75							230					209		

K-LINE																								
Interior equipment individual parts (left comp.)		1 shelf						4 perforated insert						7 bottom collecting sump										
		2 tray shelf						5 drawer						8 metal-free bottom collecting sump										
		3 metal-free tray shelf						6 disposal drawer																
Interior equipment individual parts (right comp.)		9 metal-free tray shelf						10 pull-out shelf with sump																
																								
	1	2	3	4	5	6	9	10	2	3	5	6	7	8	9	10	2	3	5	6	7	8	9	10
K30.197.120.MV.FWAS	75			75			25						27		11						24,5		10	
K30.197.120.MC.FWAS	75			75			25						27		11						24,5		10	
K90.196.120.MF.FWAS	75	150	50	75	25	50		25	11,5/22	11	4,5	7,5	11/22/33	11		11	10/20	10	4	6,5	10/20/30	10		10
K90.196.120.MC.FWAS	75	150	50	75	25	50		25	11,5/22	11	4,5	7,5	11/22/33	11		11	10/20	10	4	6,5	10/20/30	10		10
K90.196.120.MF.FWAC	75	150	50	75	25	50		25	11,5/22	11	4,5	7,5	11/22/33	11		11	10/20	10	4	6,5	10/20/30	10		10
K90.196.120.MC.FWAC	75	150	50	75	25	50		25	11,5/22	11	4,5	7,5	11/22/33	11		11	10/20	10	4	6,5	10/20/30	10		10

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