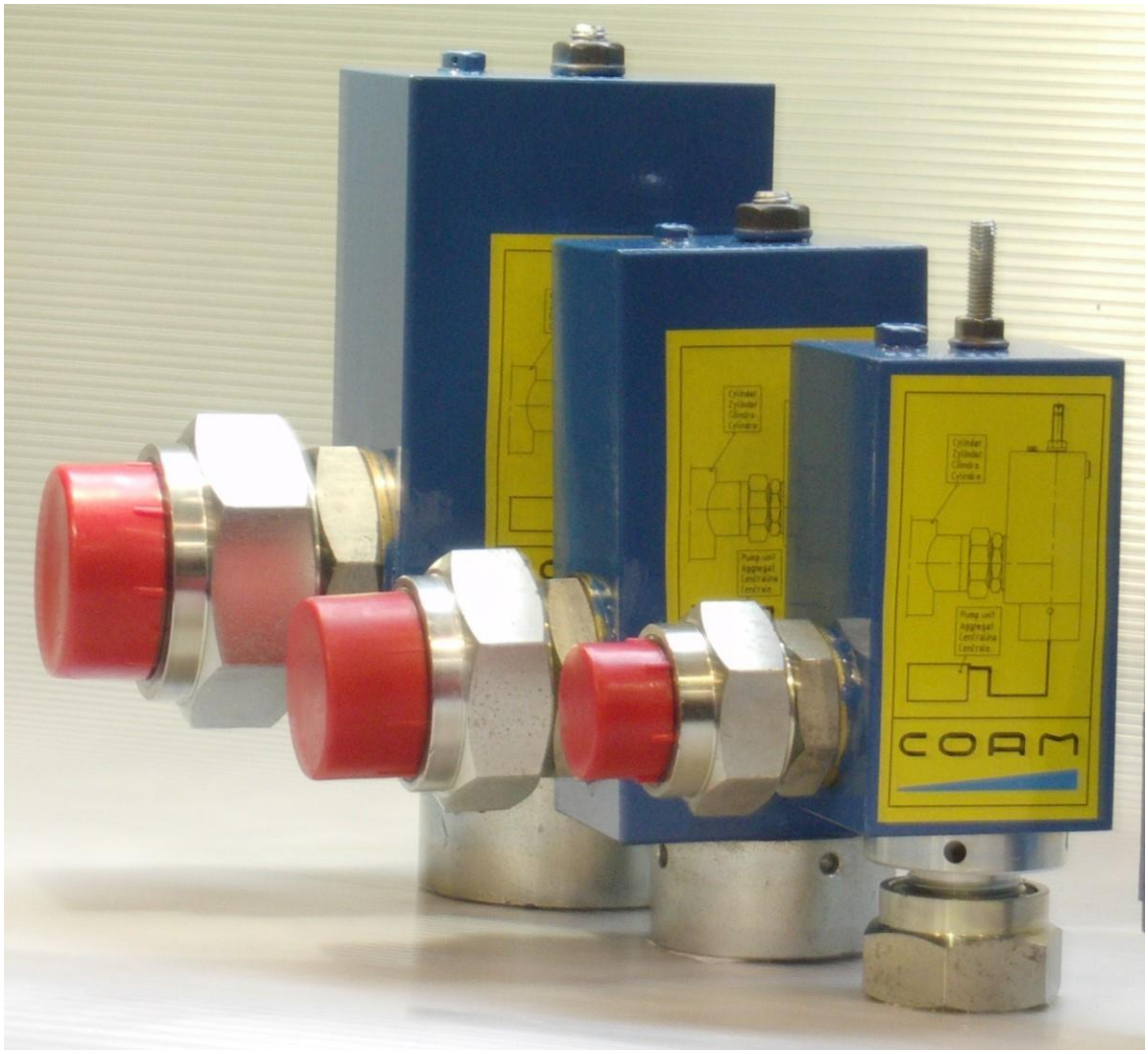


Pipe Rupture Valve, series RSG 50/55/70/90

Data is provided for the purpose of product description only, and must not be construed as warranted characteristics in the legal sense. No assertion regarding either a particular property or the fitness for a particular intended purpose can be derived or deduced from this information. The information does not relieve users from the duty of conducting their own evaluations and tests. Because the products are subject to continual improvement, we reserve the right to amend the product specifications contained in this catalogue.

Sommario

0 General

This guide is an integral part of the product. It describes the product´s safe use in all phases of operation and is valid for all model series that are referred to.

The manual must be stored in a safe place and be accessible by maintenance personnel at all times.

0.1 Target group

S Project planning

S Operator

S Installer

S Service engineer

S Repair technician

0.2 Liability and warranty

The pipe rupture valve is a safety valve. Only properly trained personnel who are familiar with the product must install, adjust and service it. If this safety component is applied or operated outside its approved range, or if any modifications to the original condition of the valve are made, then the supplier and manufacturer reject all liability, warranty claims, and claims of any other nature.

1 Product description

1.1 General description

The pipe rupture valve is a safety component that protects the elevator car from over−speeding. It stops the flow of oil from the cylinder, and therefore stops the car as well, if the car's descent speed exceeds the rated speed by approximately 30%.

> Important: The pipe rupture valve must be fitted directly on the cylinder, or connected to the cylinder by welded and appropriately sized steel pipes.

> Important: For tandem layouts, we recommend that the pipe rupture valve be installed at the point where the inter−connecting line joins the main line.

1.2 Product identification

1.2.1 Nameplate

The pipe rupture valve is supplied complete with an identification nameplate that is bonded directly to the body.

By scanning the QR- code it is possible to retrieve the information related to the specific Valve. In the case of this nameplate the string

"RSG ------- 50 16-2-1-02-127 2-2016 COAM srl 30030 PIANIGA-VE it"

Is retrieved.

RSG --- --- 50	stand for the valve type and size
16-2-1-02-127	is the unique serial number of the valve
2-2016	means month-year of production

Fig. 0 Nameplate

1.2.2 Characteristics

Design

1−piece body with threaded ports. Closing flow rate is externally adjustable; adjuster can be wired and lead−sealed.

Hydraulic characteristics

Mineral oil (HL−HLP)
Temperature range: −20 ... +70ºC
Viscosity range: 20 ... 300cSt

Type	Flow range	Press. range	Pressure Port	
			P	Z
RSG 50	5 ÷ 60	10 ÷ 70	G½	Custom
RSG 55	20 ÷ 350	10 ÷ 100	G1 G1¼ G1½	G1
RSG 70	110 ÷ 550	10 ÷ 100	G1¼ G1½ G2	G1½
RSG 90	180÷ 700	10 ÷ 70	G2	G1½ G2
RSG 90	180 ÷ 900	15 ÷ 70	G2	G1½ G2

1.2.3 Test references

The pipe rupture valve is certified and type−approved to European Lift Directive 2014/33/EU and Safety Regulations EN 81−50:2020,
EN 81−50:2020, and to UKAS Lifts Regulations 2016, Schedule 11, Section A

Type	CE Certificate No.	Test report	UKCA certificate No.
RSG 50	F-0394-1/2021	LAB-21-7/2021	
RSG 55	F-0395-1/2021	LAB-21-7/2021	UK-RV028
RSG 70	F-0396-1/2021	LAB-21-7/2021	UK-RV029
RSG 90	F-0397-1/2021	LAB-21-7/2021	UK-RV030

The testing was performed by:
ÉMI TÜV SÜD Ltd
Dózzsa György út 26.
H-2000 Szentendre
Identification No. 1417

Approved Body for UKCA Certificate:

TÜV SÜD Babt Unlimited
Octagon House
Concorde Way,
Segentworth North
Fareham Hampshire
PO15 5RL, UK
Identification No. 0168

1.2.4 Symbol

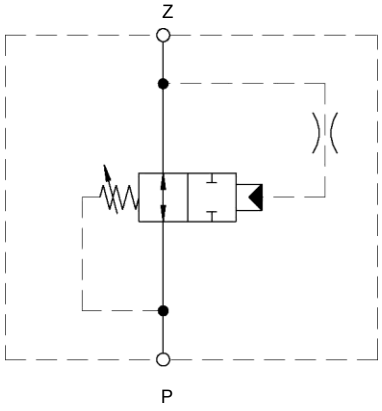
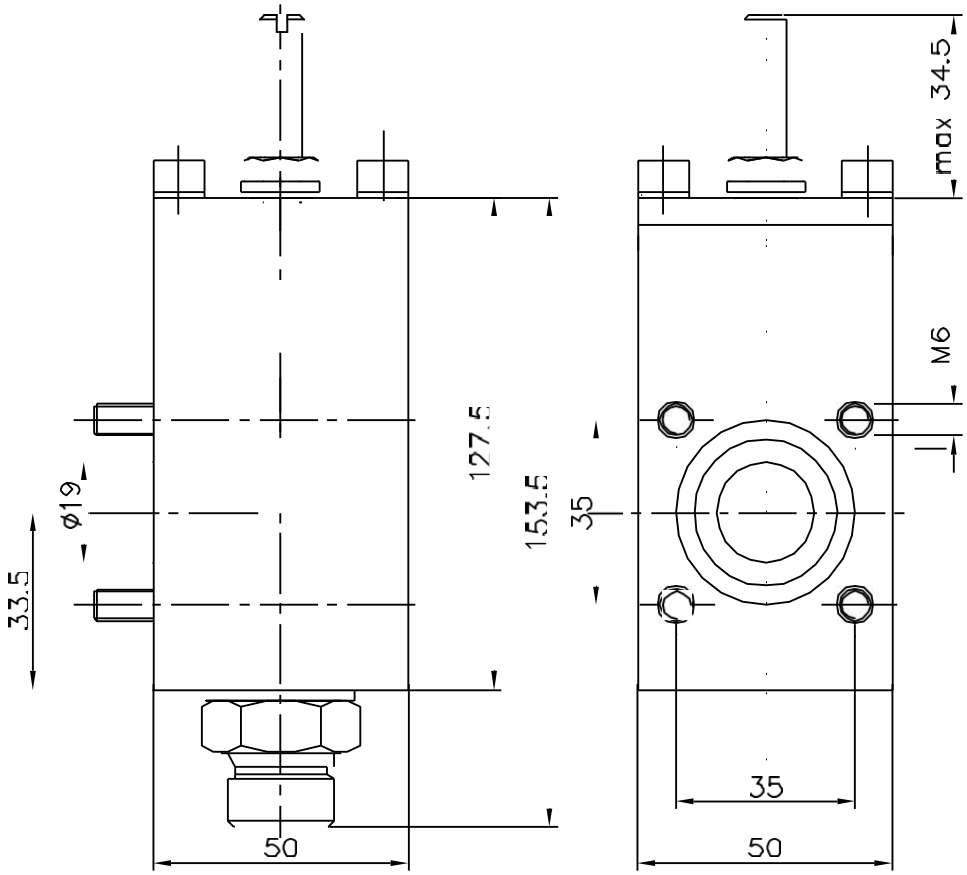


Fig. 1 Symbol

1.3 Dimensions

Type RSG 50



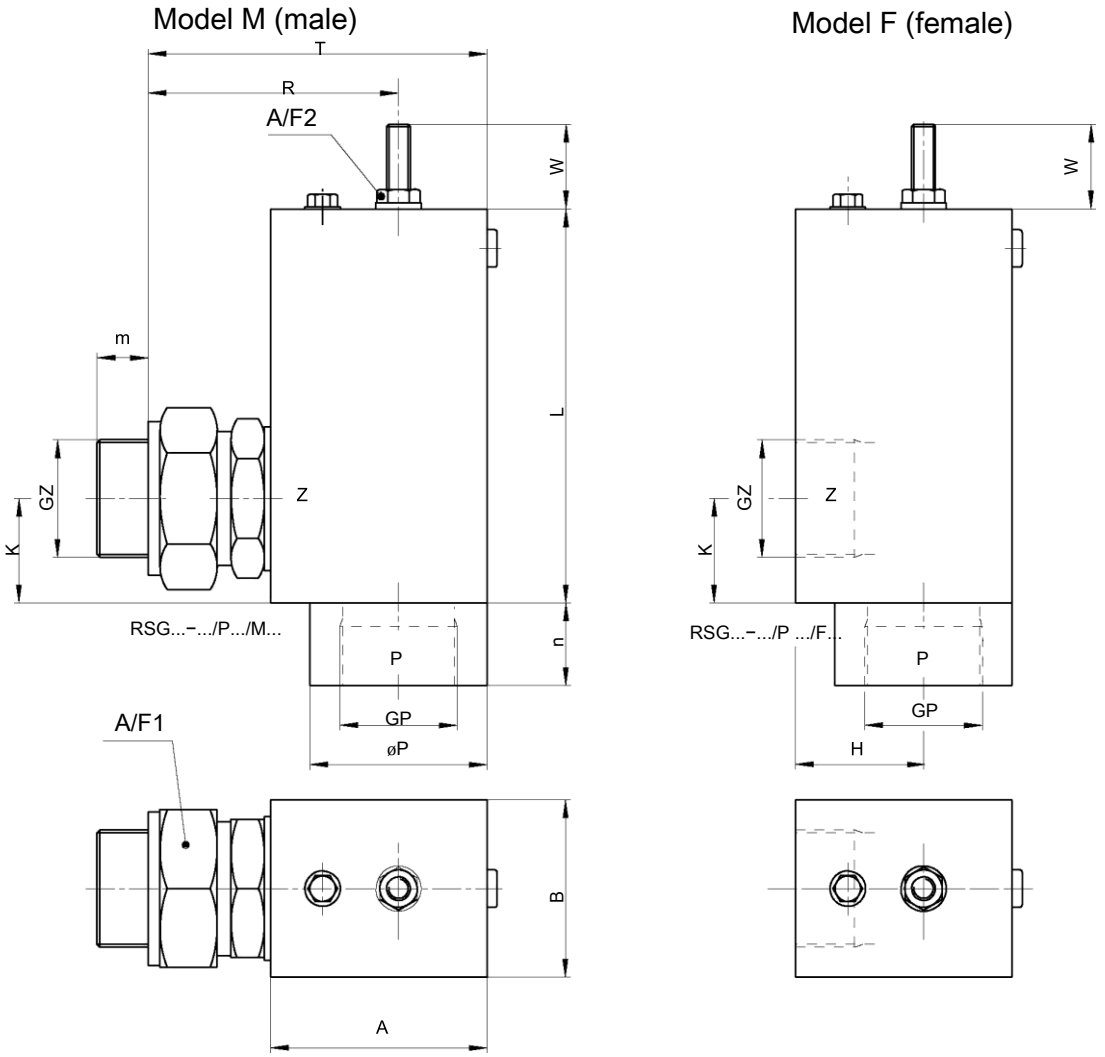


Fig. 2 Dimensions

Type	Port		Dimensions [mm]												
	GZ	GP	A	B	H	K	L	m	n	øP	R	T	W	A/F1	A/F2
RSG 55	G1	G1	70	70	41.5	30	126	19	26	55	89.5	118	<36.5	50	13
	G1	G1¼							35						
	G1	G1½							36						
RSG 70	G1½	G1¼	90	70	55	43	164	22	35	70	107	142	<51	65	19
	G1½	G1½													
	G1½	G2													
RSG 90	G1½	G2	110	90	65	53	200	26	42	90	128	173	<63	65	19
	G2	G2												80	

2 Safety information

It is essential to take note of the important safety information contained in this document (guide).

Important

Denotes a potentially harmful situation. If it is not prevented, the product or its surroundings may be damaged.

Caution

Denotes a potentially dangerous situation. If it is not prevented, it may result in slight or minor injuries to people.

Warning

Denotes a potentially dangerous situation. If it is not prevented, it may result in death or serious injuries to people.

Danger

This denotes a directly imminent danger. If it is not attended to, it will result in death or serious injuries to people.

3 Installation and commissioning

3.1 Installation and maintenance information

Important

The pipe rupture valve must be fitted directly on the cylinder, or connected to the cylinder by welded and appropriately sized steel pipes.

Installation and maintenance personnel are directly responsible for safety during assembly or maintenance activities. It is essential to adhere to all safety and hazard instructions in order to prevent damage to equipment or injury to one's own personnel or to persons who are not directly involved.

⚠ Caution

Before doing any work on a hydraulic elevator, and with particular reference to the pipe rupture valve, it is essential to take the following steps

S Drive the elevator car to the lowest floor

S Switch off the main switch at the elevator controls

S Use the manual emergency lowering valve to set the car down onto the buffer / buffers

S Completely vent the hydraulic pressure in the system (in 2:1 systems, it is important that the preload pressure developed by the emergency lowering valve is also vented)

Important: Protect the cylinder and piston rod sections from dirt and damage

3.2 Cleanliness and environmental protection

Dirt in the cylinder and in the hydraulic system will affect operation and could lead to malfunctions. All components that are to be fitted, examined or repaired must be thoroughly cleaned and checked for any sign of damage before being reinstalled.

Any oil that escapes during assembly, maintenance or repair must be caught in a container or receptacle and be properly disposed of after work has been completed.

> Important: Hydraulic fluid can be a danger to the environment and must under no circumstances be allowed to contaminate the soil. Dirty oil must be poured into appropriate containers on site and subsequently disposed of by the proper means.

3.3 Condition as−supplied

The pipe rupture valve is factory−set to the parameters for the installation and the adjusting screw is then wired and lead−sealed. The closing flow setting is shown on the nameplate.

Important

The setting of the pipe rupture valve should not normally be altered. If an adjustment is essential, only suitably trained personnel must carry out the work. After the alteration, the adjusting screw must be re−wired and re−sealed.

> Important: Removal of the security wire and/or seal will invalidate all claims of any kind against the supplier or manufacturer.

3.4 Fitting the pipe rupture valve

The installation position of the pipe rupture valve is irrelevant.

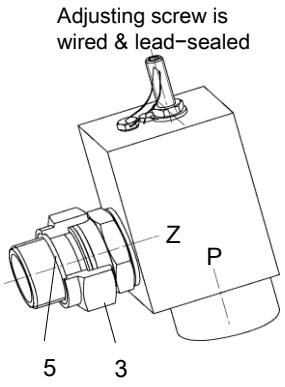
Fitting the pipe rupture valve to the cylinder port

1. Remove the protective plug from the cylinder connection (Z)
2. Remove the protective plug from the pipe rupture valve connecting nipple
3. Clean the connections and the sealing faces

> Important: check that the O−ring seal (item 5) is fitted in its groove and is not damage

4. Carefully screw the pipe rupture valve, together with its preassembled connecting nipple, into the cylinder port
5. Screw in the connecting nipple to its end−stop, then turn it back until the hose/pipe outlet on the pipe rupture valve (port P) is correctly aligned
6. Tighten the nut (item 3) using a hex. wrench, A/F1 (see page 9)

Pipe rupture valve is fitted to the cylinder port



Fitting the hose / pipe to port P of the pipe rupture valve

1. Clean connection P thoroughly

> Important: It is essential to remove the protective plug from the P port of the pipe rupture valve. If this plug is not removed, system malfunctions may occur.

2. Screw the adapter (hose/pipe fitting) into port P carefully, and tighten it

3. Attach the hose/pipe to the adapter, then tighten the joint carefully

> Important: Ensure that the hose / pipe that runs back to the elevator valve (the hydraulic power unit) is routed in the best manner, and secure it in position with suitable hose / pipe clamps. In the case of hoses, it is vital to follow the specifications for minimum bend radii.

Hose / pipe is fitted to port P of the pipe rupture valve

3.5 Setting the pipe rupture valve

3.5.1 Valve with factory settings

If the parameters for the elevator installation are known, the pipe rupture valve is factory−set to the required closing flow rate and the adjusting screw is then wired and lead−sealed.

Pipe rupture valves that have been set can be identified by the existence of the security wire and by the closing flow rate that is shown on the nameplate.

⚠ Caution

The setting must not be altered, and under no circumstances must the security wire be removed.

3.5.2 Setting performed on site / by the elevator manufacturer

If the parameters for the elevator installation are not known, the pipe rupture valve must be set to the required closing flow rate by the elevator manufacturer / on site and then wired and lead−sealed.

⚠ Caution

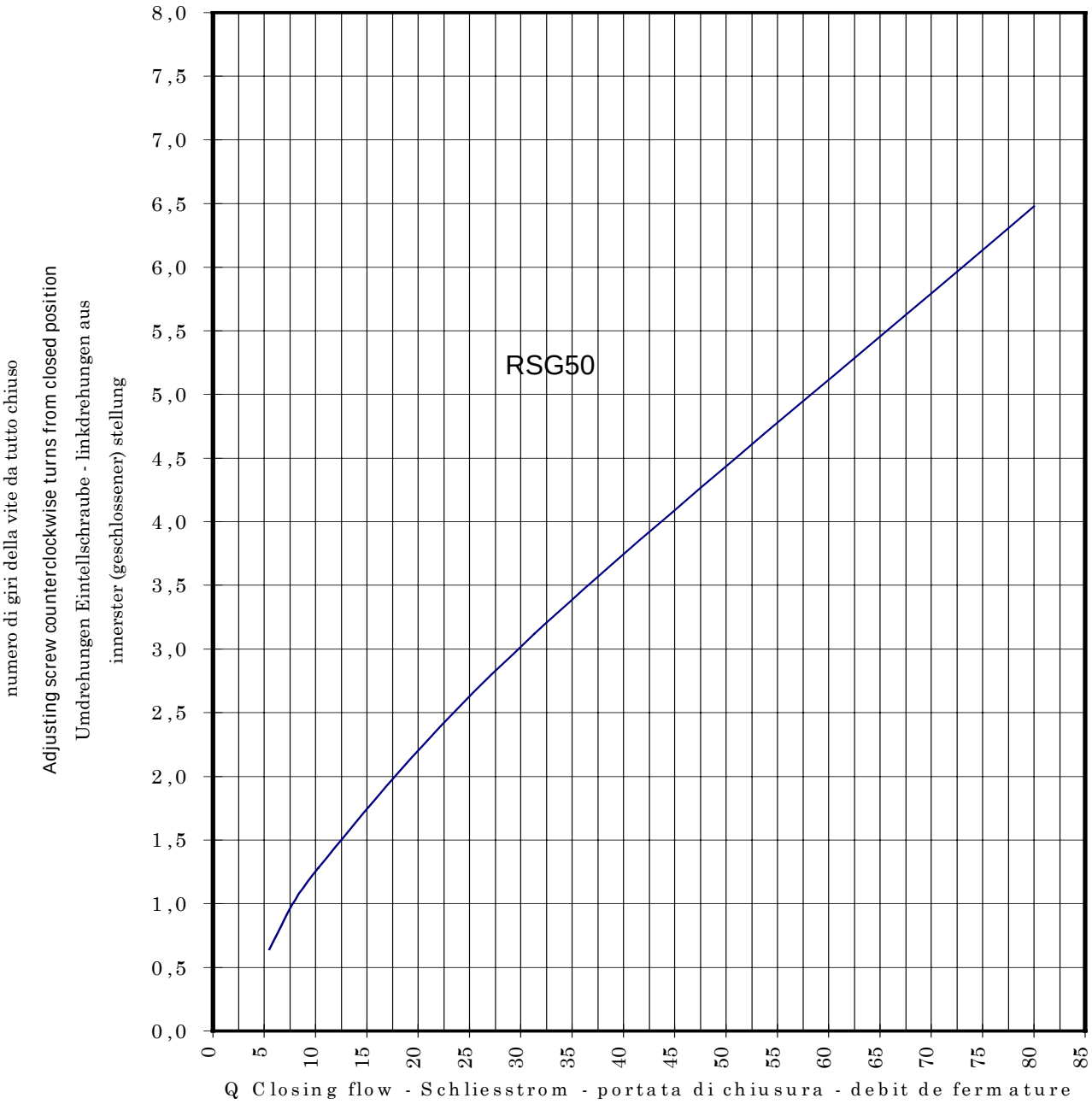
The responsibility for any adjustment work on the pipe rupture valve rests with the person who carried out the adjustment, or his/her representative. The manufacturer has no liability in this respect.

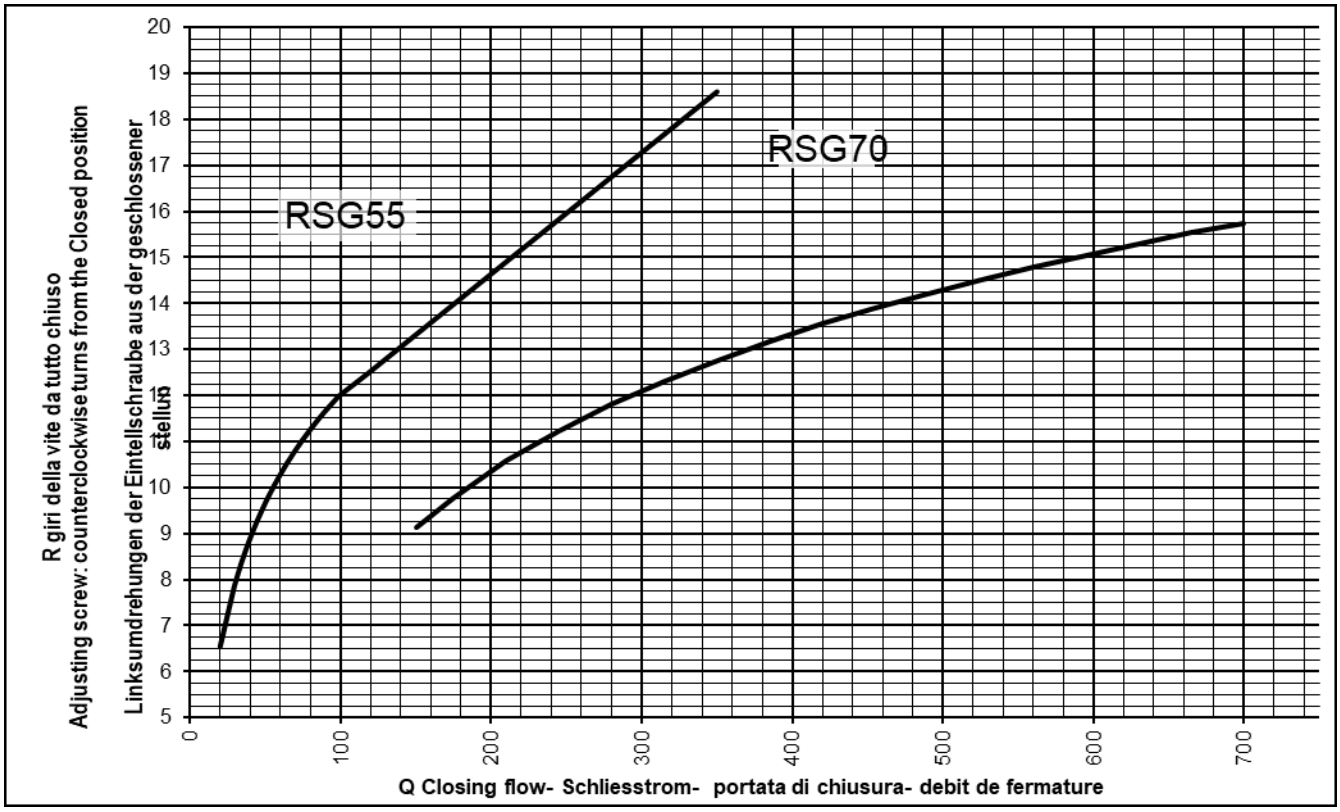
Setting and sealing the pipe rupture valve

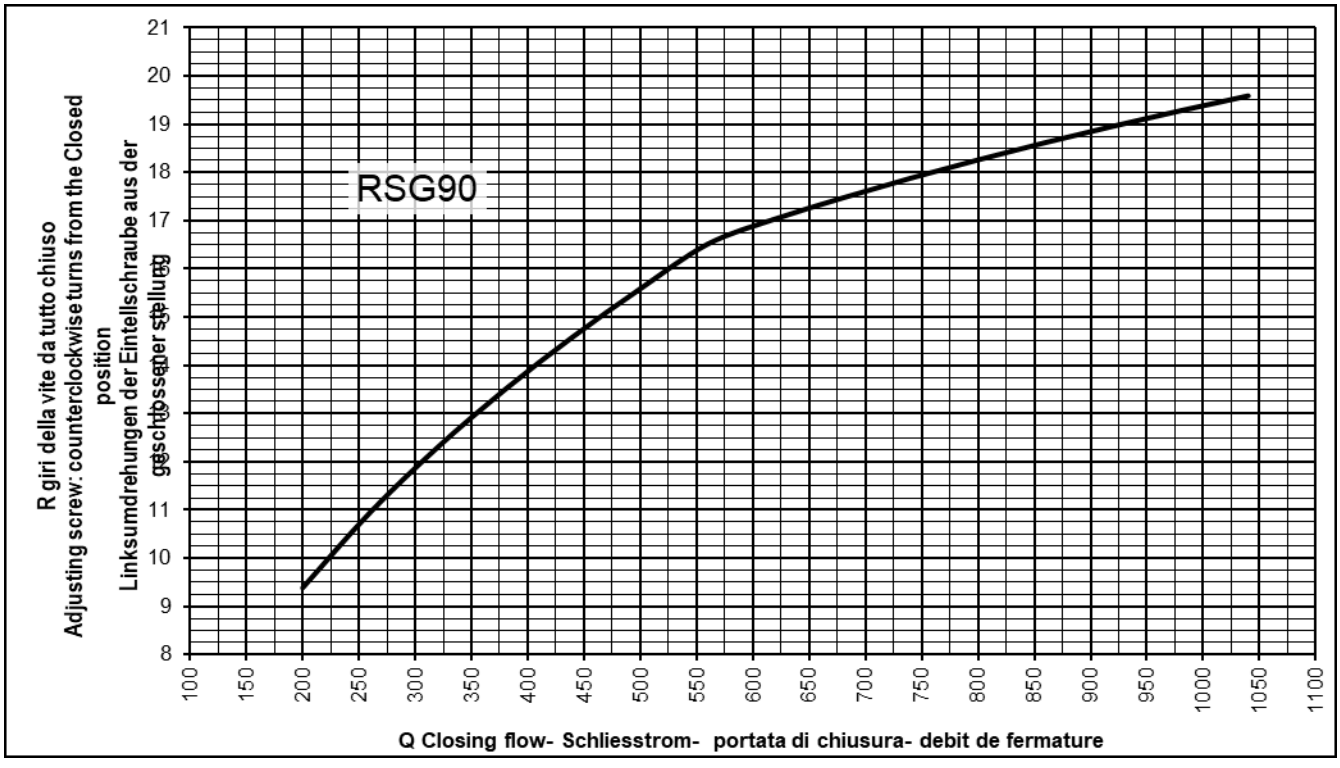
1. Establish the nominal lowering flow rate by consulting the elevator data
2. Determine the size of the pipe rupture valve by consulting page 6
3. Multiply the nominal lowering flow rate by a factor of 1.3
4. Establish the required number of turns in accordance with pages 17/18
5. The adjusting screw is shown on page 13. Screw it in completely, then unscrew it by the required number of opening turns and tighten the lock nut (wrench size − see table on page 9, A/F2)
6. Feed the security wire through the holes in the adjusting screw and the screw in the valve body, and twist the ends together
7. Slip the lead blank over the wire ends and crimp it onto the wires using the special hand press
8. Mark the closing flow rate setting on the nameplate

The pipe rupture valve is now set and sealed

3.5.3 Setting diagrams




RSG55
RSG70
R giri della vite da tutto chiuso
Adjusting screw: counterclockwise turns from the Closed position
Linksumdrehungen der Eintellschraube aus der geschlossener
Q Closing flow- Schliesstrom- portata di chiusura- debit de fermature


RSG90
R giri della vite da tutto chiuso
Adjusting screw: counterclockwise turns from the Closed position
Linksumdrehungen der Eintellschraube aus der
Q Closing flow- Schliesstrom- portata di chiusura- debit de fermature

3.6 Testing the pipe rupture valve

A precondition for testing the pipe−rupture valve is that the lift must be working properly, without any faults.

Danger

Uncontrolled descent (free fall)

People may suffer injury and materials may be damaged.

Before testing the pipe−rupture valve, make sure that there are no people or materials in the lift shaft.

Attention

Uncontrolled descent (free fall)

Can cause damage to the support frame and car.

The elevator car must come to rest within 3–5 metres.

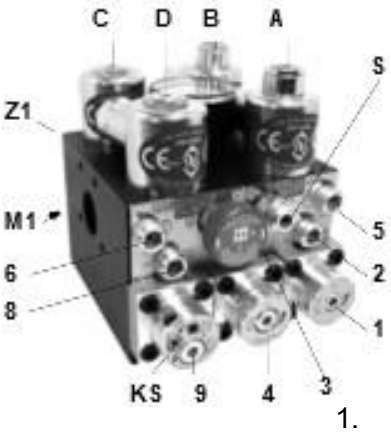
If it does not, immediately switch off the main switch for the lift control system (and repeat the test).

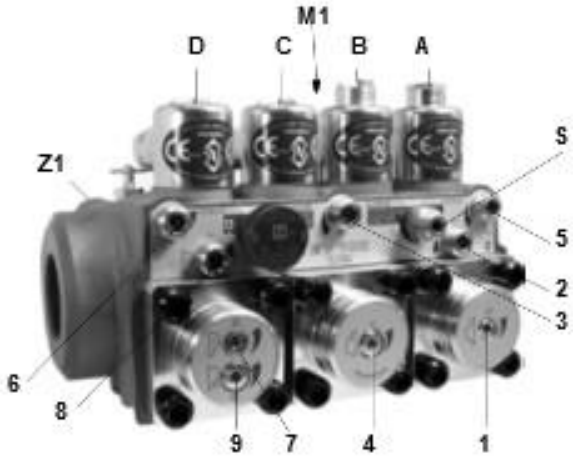
Preparing to test the pipe rupture valve

1. Load the car to half of its rated capacity
2. Drive the car to the top floor

> Important: do not carry out the test if the car is too close to the lowest floor.

3.6.1 Testing the pipe rupture valve with Blain Ev100





1. Turn counterclockwise (outward) the screw 7 until its stop by counting the turns in order to reset the valve after the test. This way the downward speed is the maximum achievable.

2. Send DOWN command

3. Wait until the car is accelerating

4. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.

Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested .

5. Reset the screw 7 back at its previous position.

6. In order that the pipe rupture valve re−opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use

3.6.2 Testing the pipe rupture valve with LRV−1 / C−LRV

This description of the test procedure for the pipe rupture valve assumes that it is being used in conjunction with an LRV−1 or C−LRV closed−loop lift control valve.

> Important: For limiting the lowering speed, there is a screw (Fig. 5, Item 3) on the pilot plate of the LRV−1 lift control valve. As shipped from the factory, this screw is set so that it does not impose any limit on the lowering speed. This means that the pipe rupture valve can be tested without having to turn this screw.
> It is possible, however, that the pipe rupture valve does not respond during the test because the car never reaches the necessary lowering speed. In that case, it may be necessary to open this screw by 2 turns counterclockwise (close it by 2 turns clockwise after the test!).

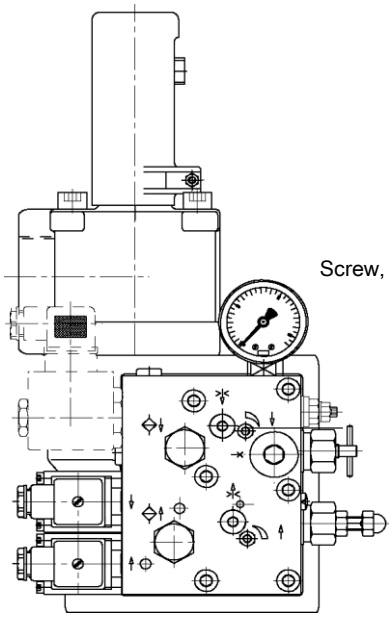


Fig. 6 LRV−1: screw for limiting the lowering speed

Testing the pipe−rupture valve (with Handterminal)

> Important: Testing the pipe rupture valve with the Handterminal is only possible with software version 2.110 or higher (DELCON or C−DELCON).

1. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2 turns counter−clockwise
2. On the Handterminal, select the Pipe rupture" function in the Information (4) menu under Commands"
3. Press and hold the + key on the Handterminal; the "DOWN" LED on the DELCON will start to flash
4. Send DOWN command
5. Wait until the car is accelerating
6. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

> Important: Releasing the + key on the Handterminal stops the travel, and the maximum feedback value is displayed. If the DOWN command is still present on quitting the menu, travel will resume normally.

> Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.
>
> Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested (with Handterminal)

7. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2turns clockwise
8. In order that the pipe rupture valve re-opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use

Testing the pipe−rupture valve (with Miniterminal)

> Important: Testing the pipe rupture valve with the Miniterminal is only possible with software version 2.110 or higher (only LRV−1 with DELCON).

1. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2turns counter−clockwise
2. Press and hold the ↲ key on the Miniterminal; the "DOWN" LED on the DELCON will start to flash
3. Send DOWN command
4. Wait until the car is accelerating
5. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

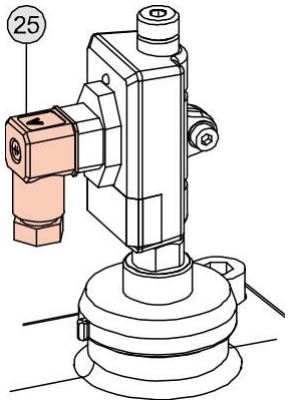
> Important: Releasing the ↲ key on the Miniterminal stops the travel, and the maximum feedback value is displayed. If the DOWN command is still present on quitting the menu, travel will resume normally.

> Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.
>
> Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested (with Miniterminal)

6. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2turns clockwise
7. In order that the pipe rupture valve re−opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use



Testing the pipe−rupture valve (without Hand− or Miniterminal)

1. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2turns counter−clockwise
2. Set the "SIU Type" parameter in the DELCON to "Off"
   - make a note of the existing setting
3. Set the "Demand val. red." parameter in the DELCON to "Off"
   - make a note of the existing setting
4. Send a "Down" command to the controller
5. Wait until the car is accelerating
6. Remove the feedback plug (25) from the Hall sensor
7. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

> Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.
>
> Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested (without Hand−or Miniterminal)

8. Cancel the DOWN command
9. Refit the feedback plug (25) to the Hall sensor
10. Reset the "SIU Type" parameter in the DELCON to the setting noted down in Step2.
11. Reset the "Demand val. red" parameter in the DELCON to the setting noted down in Step 3.
12. If necessary: Turn the adjusting screw, item 3 on the pilot subplate (see page 19), 2turns clockwise
13. In order that the pipe rupture valve re−opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use

3.6.3 Testing the pipe rupture valve with VF−LRV

This description of the test procedure for the pipe rupture valve assumes that it is being used in conjunction with an VF−LRV closed−loop lift control valve.

Testing the pipe−rupture valve (with Handterminal)

> Important: Testing the pipe rupture valve with the Handterminal is only possible with software version 2.110 or higher (VF−DELCON).

1. Alter the frequency inverter settings:
   - Unidrive SP/Unidrive LFT
     Change parameter 0.02" (Reference clamp [maximum]) from 3000 to 3600 and save the setting (see Unidrive SP, Installation and commissioning guide, Part. no. 9010166)
   - Dietz DSV 5445
     Change parameter 0E00" from 660 (50Hz motor) to 792 (60Hz motor) and save the setting
2. On the Handterminal, select the Pipe rupture" function in the Information (4) menu under Commands"
3. Press and hold the + key on the Handterminal; the "DOWN" LED on the VF−DELCON will start to flash
4. Send DOWN command
5. Wait until the car is accelerating
6. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

> Important: Releasing the + key on the Handterminal stops the travel, and the maximum feedback value is displayed. If the DOWN command is still present on quitting the menu, travel will resume normally.

> Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.
>
> Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested (with Handterminal)

7. Reset the frequency inverter settings:

- Unidrive SP/Unidrive LFT
  Reset parameter 0.02" (Reference clamp [maximum]) from 3600 to 3000 and save the setting (see Unidrive SP, Installation and commissioning guide, Part. no. 9010166)
- Dietz DSV 5445
  Reset parameter 0E00" from 792 (60Hz motor) to 660 (50Hz motor) and save the setting

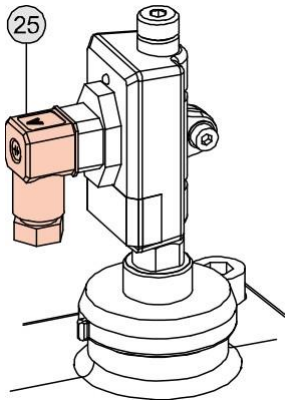
8. In order that the pipe rupture valve re−opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use

Testing the pipe−rupture valve (without Handterminal)

1. Alter the frequency inverter settings:
   - Unidrive SP/Unidrive LFT
     Change parameter 0.02" (Reference clamp [maximum]) from 3000 to 3600 and save the setting (see Unidrive SP, Installation and commissioning guide, Part. no. 9010166)
   - Dietz DSV 5445
     Change parameter 0E00" from 660 (50Hz motor) to 792 (60Hz motor) and save the setting

2. Set the "SIU Type" parameter in the VF−DELCON to "Off"
   - make a note of the existing setting



3. Send DOWN command

4. Wait until the car is accelerating

5. Remove the feedback plug (25) from the Hall sensor

6. When the triggering speed is reached, the pipe rupture valve closes and travel stops.

> Important: after the pipe rupture valve has closed, pressure can again build up between the lift control valve and the pipe−rupture valve, causing the pipe−rupture valve to re−open. If the pipe rupture valve is to remain closed for a long period, this pressure must be vented through the manual emergency−lowering valve on the lift control valve. If the hose/pipe is actually burst, the pipe−rupture valve will always remain closed.
>
> Very slight leakage through the pipe−rupture valve is permissible.

The pipe−rupture valve has been successfully tested (without Handterminal)

7. Cancel the DOWN command

8. Refit the feedback plug (25) to the Hall sensor

9. Reset the "SIU Type" parameter in the VF−DELCON to the setting noted down in Step 2.

10. Reset the frequency inverter settings:
    - Unidrive SP/Unidrive LFT
      Reset parameter 0.02" (Reference clamp [maximum]) from 3600 to 3000 and save the setting (see Unidrive SP, Installation and commissioning guide, Part. no. 9010166)

- Dietz DSV 5445
  Reset parameter 0E00" from 792 (60Hz motor) to 660 (50Hz motor) and save the setting

11. In order that the pipe rupture valve re−opens and the elevator is ready for service: build up pressure using the hand pump or carry out an upwards travel.

The system is once again ready for use

3.6.4 Pipe rupture valve test with iValve

A precondition for testing the pipe-rupture valve is that the lift must be working properly, without any faults.

DANGER!

Uncontrolled descent (free fall)

Leads to death or serious injuries.

Before testing the pipe-rupture valve, make sure that there are no people or materials in the lift shaft.

1. Load the car (the amount of load as per specifications from lift builder, standards autority, etc.)

ATTENTION!

When the car is empty, and under certain circumstances, the speed reauired to trigger the pipe-rupture valve may not be reached

Do not carry out the test if the car is too close to the lowest floor.

2. Drive the car to the top floor

ATTENTION!

Uncontrolled descent (free fall)

Can cause damage to the support frame and car.

The elevator car must come to rest within 3 … 5 metres.
If it does not, immediately release the push buttons on the iCon.
Resolve the problem and repeat the test.

Carrying out Pipe rupture valve test with Handterminal

1. On the Handterminal select menu 3, then “Adjust./tests”, then “Pipe rupt. test” => various LEDs start to flicker (at high frequency = fast)

The LED ”down“ on the iCon starts to flash slowly

2. On the iCon press and hold the push buttons ”ok” and “select”

3. Send DOWN command

4. Wait until the car is accelerating
   The LED ”down“ on the iCon flashes faster

When the triggering speed is reached, the pipe rupture valve closes and travel stops.

	ATTENTION!
	If one of the two buttons "ok" or "select" on the iCon is released during this examination before the pipe rupture valve has tripped, the iValve closes immediately and the down travel is stopped. When using the Handterminal the max. actual value / maximum speed is shown on the display.

	ATTENTION!
	Pipe rupture valves do not close completely leakage free. In case of a simulated pipe rupture, as described in this test procedure, the leakage causes the pipe between the pipe rupture valve and the lift control valve to assume the same pressure as the hydraulic cylinder after a certain time. This pressure compensation causes the automatic reopening of the pipe rupture valve. This does not impede the safe function of the pipe rupture valve in case of an actual pipe rupture, since in case of an actual pipe rupture the pipe between the rupture valve and the lift control valve would remain pressure-less, the pressure compensation would not occur. If the pipe rupture valve is meant to remain closed after the test, the pipe between the rupture valve and the lift control valve must remain pressure-less, e.g. by continuous pressing of the manual emergency lowering valve.

In order to finish the pipe rupture test sequence properly:

5. Withdraw the DOWN command

6. On the handterminal, press the "-" key

7. In order to reopen the pipe rupture valve and make the lift ready for service: build up pressure using the hand pump or carry out an UP travel

The test can also differ from the above description and be carried out in accordance with alternative specifications. (e.g. by modifying the parameter for fast speed down).

Carrying out Pipe rupture valve test at iCon

1. on iCon press the push buttons „ok“ and „select“ simultaneously when switching ON power supply of iCon => various LEDs start to flicker (at high frequency = fast)
2. press „select“ => error relay is switched on for about 1 sec.
3. press „ok“ => LED „down“ starts to flash slowly
4. press and hold „ok“ and „select“
5. send DOWN-command
6. Wait until the car is accelerating
   The LED ”down“ on the iCon flashes faster

When the triggering speed is reached, the pipe rupture valve closes and travel stops.

ATTENTION!

If one of the two buttons "ok" or "select" on the iCon is released during this examination before the pipe rupture valve has tripped, the iValve closes immediately and the down travel is stopped. When using the Handterminal the max. actual value / maximum speed is shown on the display.

ATTENTION!

Pipe rupture valves do not close completely leakage free.
In case of a simulated pipe rupture, as described in this test procedure, the leakage causes the pipe between the pipe rupture valve and the lift control valve to assume the same pressure as the hydraulic cylinder after a certain time.
This pressure compensation causes the automatic reopening of the pipe rupture valve.
This does not impede the safe function of the pipe rupture valve in case of an actual pipe rupture, since in case of an actual pipe rupture the pipe between the rupture valve and the lift control valve would remain pressure-less, the pressure compensation would not occur.
If the pipe rupture valve is meant to remain closed after the test, the pipe between the rupture valve and the lift control valve must remain pressure-less, e.g. by continuous pressing of the manual emergency lowering valve.

In order to finish the pipe rupture test sequence properly:

7. Withdraw the DOWN command
8. To exit pipe-rupture test mode: switch the iCon off and on again
9. In order to reopen the pipe rupture valve and make the lift ready for service: build up pressure using the hand pump or carry out an UP travel

The test can also differ from the above description and be carried out in accordance with alternative specifications. (e.g. by modifying the parameter for fast speed down).

4 Operation

The Pipe Rupture valve has no components that have to be operated or actuated.

Important

The pipe rupture valve must not be modified. If any alterations or modifications are noticed on the pipe rupture valve:

- Shut down the elevator immediately and then replace the valve
- inform the supplier

5 Service

Caution

Oil under high pressure

Can cause serious injuries.

Only qualified elevator personnel may carry out work of any kind.

The pipe rupture valve normally requires no maintenance. The valve's function must be checked periodically, however.

Important

If any malfunctions occur during the repeat tests, then the valve must be removed and replaced with a new valve.
Do not operate the elevator under any circumstances if no pipe rupture valve is fitted, or if the valve is not functioning correctly.

Important: Dirt in the oil may cause operating failures, and consequently it is important for the oil quality to be regularly checked and analysed.