



Installation and Operating instructions

(Translation of the original operating instructions)

TEKA telescope arm



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1. General

Congratulations on purchasing the product from TEKA.

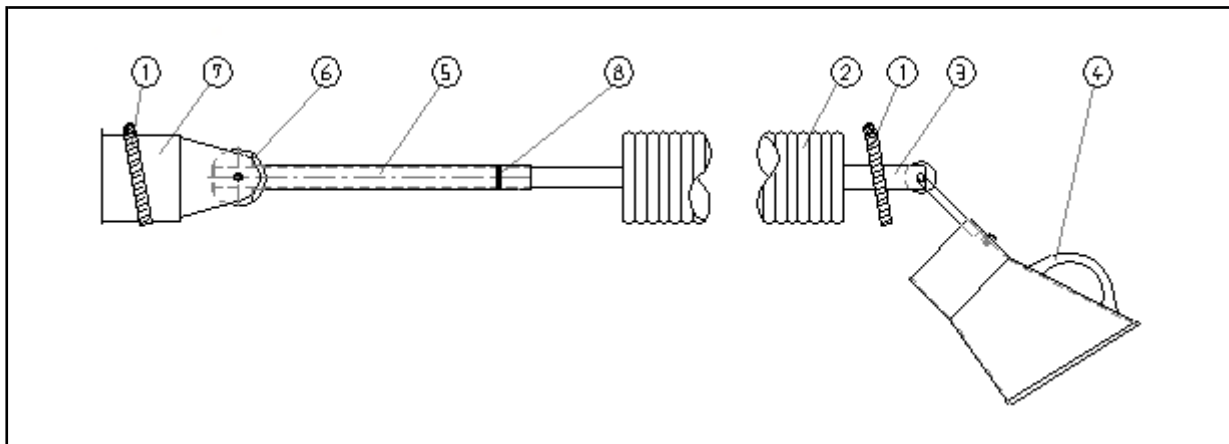
Our engineers ensure that our devices reflect the state of the art through continuous development. Nevertheless, misuse or misconduct can endanger your safety. Please observe the following for a successful use of the device:

	<p>Only authorised and instructed personnel can carry out transport, operation, maintenance and repair of the device. The operator must ensure that the operating personnel take note of these instructions.</p> <p>Please read these instructions before operating the device, and observe the safety precautions to avoid injury!</p> <p>Store this manual in a safe place! These instructions are to be regarded as a component of the product!</p> <p>Adhere to all product notes!</p> <p>Modifications or conversions that the operator carries out at the device without the consent of the manufacturer, can lead to new safety hazards or to the loss of warranty claims.</p> <p>Observe the manufacturer's instructions. Contact the manufacturer in case of any uncertainty: Tel: +49 2541-84841-0 E-mail: info@teka.eu</p>
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2. Description of the telescope arms

2.1. Illustration

Installation example:



Pos.	Description	Pos.	Description
1	Hose clip	5	Disk holder
2	Hose	6	Brake disks
3	Telescoping	7	Nozzle
4	Extraction hood	8	Cable fixer

2.2. Functionality of the system

The telescope arm can be set by the user in any desired position within his range and can be adjusted using the smooth-running joints.

The particles produced during welding, for example, are drawn off by the extraction hood and taken away by the hose leading to the connected suction unit.

The suction strength can be adjusted regardless of the actual suction force of the connected suction unit by means of the built-in regulator flap in the extraction hood.


The extraction hood must track the welding seam, possibly taking advantage of the thermally induced welding fume movements.

CAUTION However, it is important to ensure that connections between the workpiece and the extractor hood (and generally between the workpiece and filter device) are avoided, so that, if necessary, the welding current cannot flow back through the protective conductor of the filter device to the welding machine.

If several telescope arms are connected to a central extractor unit, you should always shut the flap at once (to save energy). This applies in particular if you do not require the extractor unit for a longer period or if you leave the workplace.

2.3. Intended use


The telescope arm is primarily used for the localized extraction of smoke, gases, fumes and dust. The telescope arm is connected directly to an extraction blower or a suction unit or a suction line.


	WARNING
	Improper use can damage parts and be a danger to life and limb! The telescope arm must not be used for the extraction of: <ul style="list-style-type: none">- damp, liquid or vapour-like materials,- smouldering or burning substances (including cigarettes),- gases / materials outside a temperature range from -30 °C to +100 °C.- gases or materials that are potentially explosive,- substances crystallising out in layers that are impermeable to air,- substances that are sticky or which cling due to static, or- materials that create sparks.


3. Safety instructions


3.1. Definition of the hazard symbols

The telescope arms are constructed according to the state of the art and the recognised safety regulations. Nevertheless, during use threats to life and limb of the user or other persons may arise. The impairment of the machine or other property are also possible. In these instructions we warn by using corresponding indications.


	WARNING
	WARNING These instructions are made in case of risks that can lead to <u>injury or death</u> .

	CAUTION
	CAUTION These instructions are made in case of risks that can lead to <u>injury</u> .


	NOTICE
	NOTICE These instructions are made in case of risks that can lead to <u>material damages</u> .


	Information notes are no hazard warnings; they call attention to useful information.
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3.2. General safety instructions


	WARNING
	Dangers arising from improper use / unauthorised operations. The operator must ensure that their authorised personnel are familiar with all the safety indications in this manual in advance. The operator is responsible for ensuring that all work is carried out by authorised and qualified personnel.

4. Storage, transport and installation

	WARNING
	Risk of injury arising from the falling of the telescope arm mounted to the wall. The telescope arm must be firmly mounted to the destined wall. The wall must be vibration-free and vertical. The operator must check if the wall provides a sufficient bearing capacity.

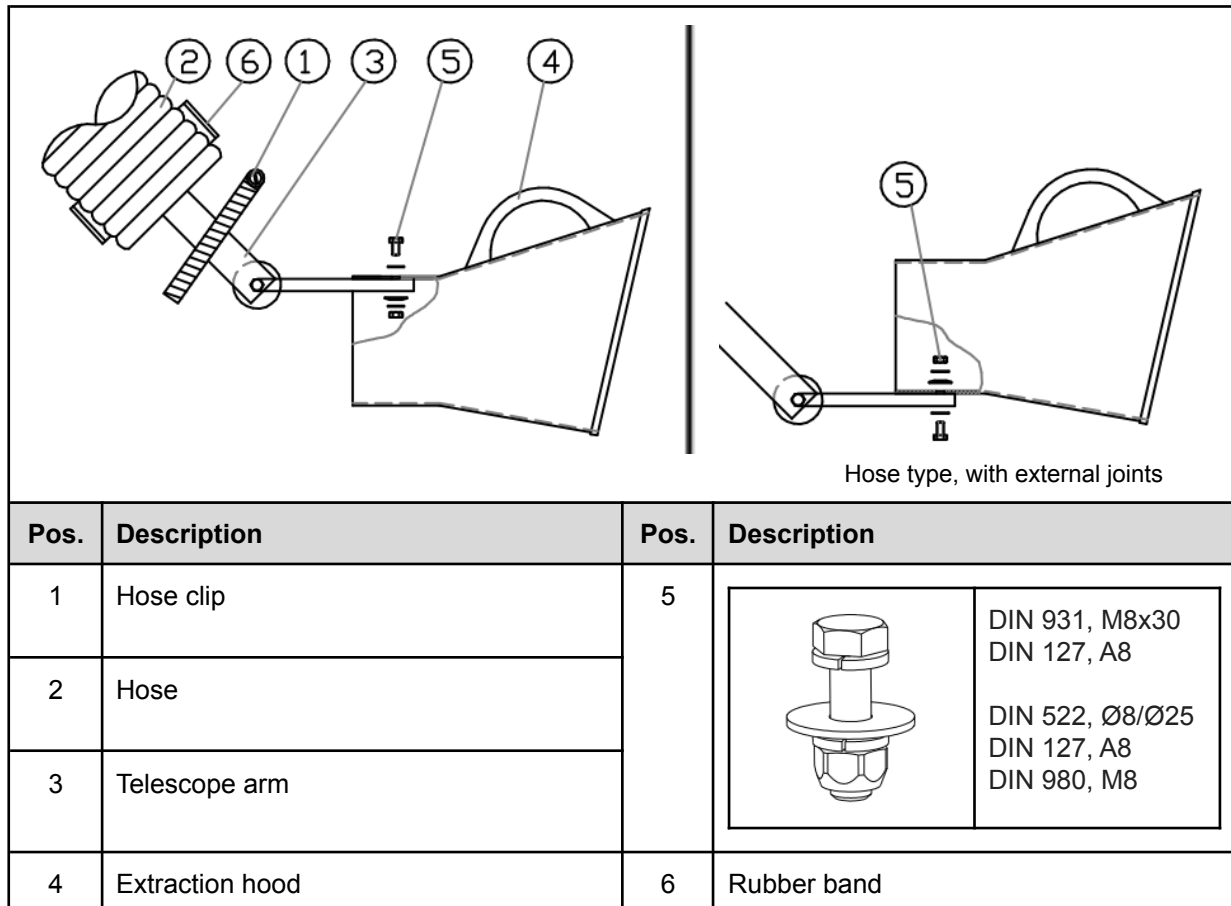
	NOTICE
	Damage or functional impairment of the unit due to climatic influences. The unit must be stored in a dry place and protected against moisture during transport. As a matter of principle, the filter unit is not designed to be installed outside.

5. Commissioning

	WARNING
	Dangers arising from a defective condition of the unit. Make sure that the measures described in this chapter are completed before the commissioning of the unit. All required connections must be attached before turning the unit on. Do not operate the unit if any components are defective, missing or damaged. Check the orderly condition of the unit before switching it on.

5.1. Installation / Adjustment at the telescope arm


5.1.1. Installing the extraction hood on the telescope arm



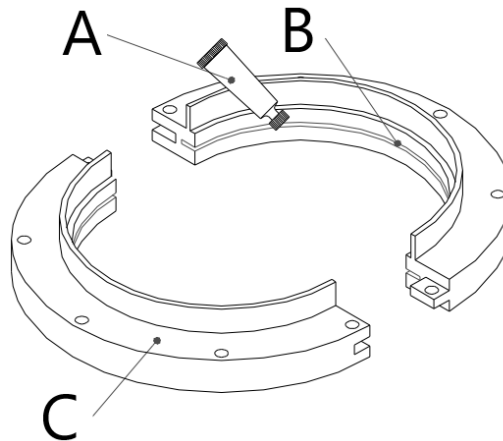
Proceed as follows for the installation of the extraction hood to the telescope arm:

- Push the rubber band (6) and hose clip (1) over the hose (2) of the suction arm (3).
- Attach the extraction hood (4) to the suction arm using the supplied assembly material (5).
NOTICE With the “*Hose type, with external joints*” version, the extraction hood is to be screwed loosely on the outside. Only when the hose is attached to the extraction hood the screw should be tightened.
- Push the end of the hose over the connection piece of the extraction hood.
- Attach the hose with the included hose clip.
- Seal the transition between the hose (2) and the extraction hood (4) with the rubber band (6). The rubber band may also cover the hose clip (1).

5.1.2. Lubricating the plastic flanged ring

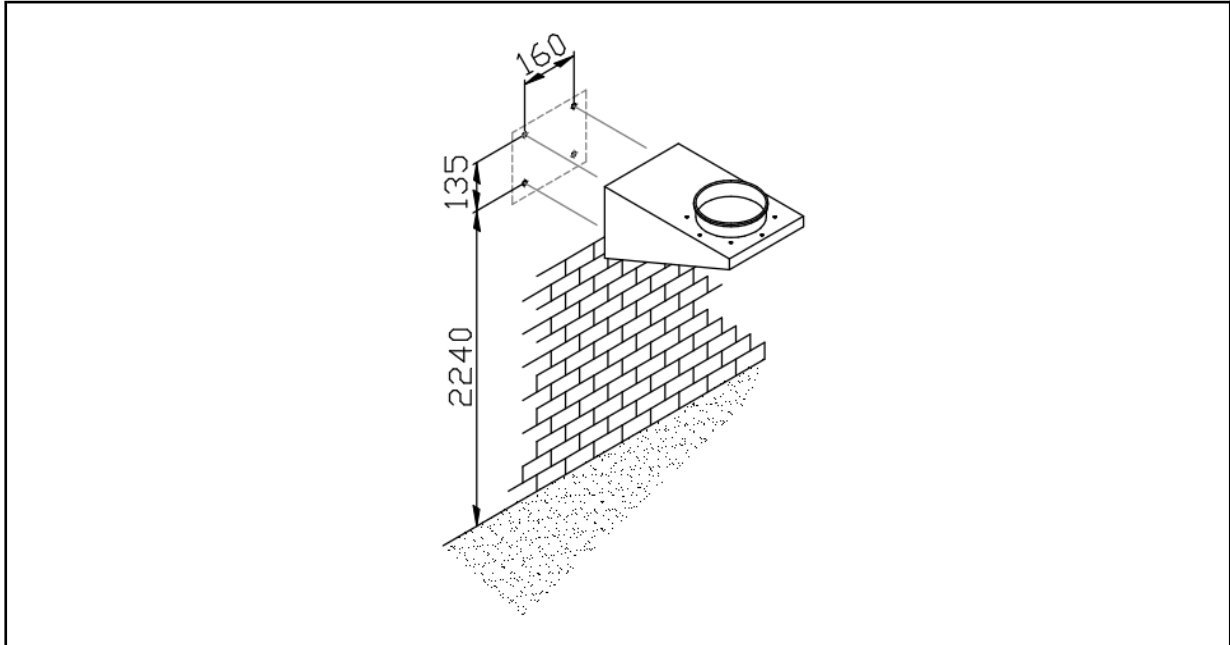
 This work step is not necessary during the initial start-up if the plastic flanged ring is already pre-assembled. In this case, the lubricating paste is already applied.

The plastic flanged ring must be relubricated at regular intervals. At the latest, however, when the suction arm can no longer be rotated easily.



- In order to be able to relubricate the plastic flanged ring (C), the telescope arm first must be dismantled. If necessary, observe the assembly instructions in this operating instruction.
- Open the tube (A) of the lubricating paste, and lubricate the guide groove (B) with it.
NOTICE The content of one tube is sufficient for a 2-part plastic flanged ring. Only use original TEKA lubricating paste (see list of spare parts).

5.1.3. Installing the wall console

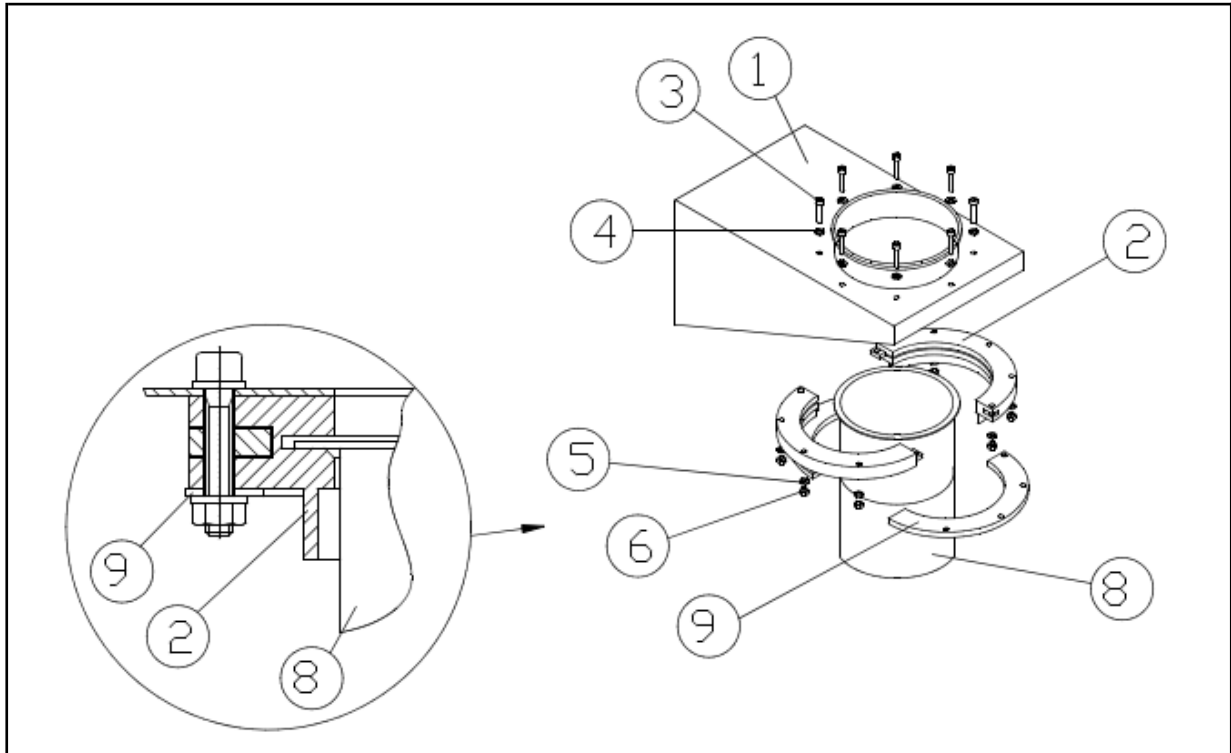








The wall console is principally required for all telescope arms that are to be fastened to the wall. The wall console is used as a connecting point for the downstream extraction.

Proceed as follows with the installation:

- Determine the assembly position for the wall console.
- Mark out the four locations for the holes to be drilled in the wall and drill the holes. (Screws with a thread size of M 10 or M 12 are to be used. The screws must be capable of holding a total tensile load of around 250 kg.)
- Attach the wall console to the wall.

5.1.4. Installing the telescope arm to the wall console



Pos.	Description	Pos.	Description
1	Wall console	5	 DIN 125, M6
2	Flanged ring  Ø150: two-part / Ø200: single-part	6	 DIN 934, M6
3	 DIN 912, M6x45	8	Nozzle
4	 DIN 127, M6	9	Stabilizing flange, split  not used for Ø200


Proceed as follows for the installation:

- Take the two parts of the plastic flanged ring (2) and push these sideways onto the flanged edge (d=169 mm) of the nozzle (8). Ensure when doing this that the flanged ring is positioned correctly with respect to the nozzle.
- Hold the nozzle with the plastic flanged ring in place from underneath against the opening in the wall console (1) and connect the parts using the supplied assembly material (3, 4, 5, 6). Screw in the stabilizing flange (9) as well. This must be offset by 90 ° on the plastic flanged ring.
- Do not fasten the screwed connections (too) tight. The nozzle must still be able to turn within the plastic flanged ring. Check this before you continue working.

5.2. Adjusting of the joints

If necessary, the throw force of the joints at the telescope arm must be adjusted. This is important in order that the telescope arm can be moved easily, but does not sink or back down.

- Adjust all the bolts and screws at the brake disks of the joints so that the telescope arm can move easily but without sagging or drooping.

 **The position of the brake discs can be found in chapter “List of spare parts”. If the brake disc is inside, the hose attachment must be detached at this place.**

6. Maintenance

Regular maintenance work is necessary due to wear caused during operation. It is described in this chapter. Unless otherwise specified by national regulations, we recommend regular visual inspections and functional tests of the device as described in the chapter “Maintenance intervals”.



You find the chapter “Maintenance intervals” at the end of the document. The general maintenance (visual inspection, etc.) is also explained there.



WARNING

Working at the telescope arm entails the risk of an accidental restarting of the extraction unit.

Before carrying out any maintenance or cleaning at the telescope arm, the extraction unit connected to the telescope arm must be set to maintenance condition first (see chapter “Reset to maintenance state”).

A re-commissioning of the extraction unit may only be carried out if it is ensured that the telescope arm corresponds in its functions to the original state.

6.1. Reset to maintenance state

The extraction unit connected to the telescope arm must be set to maintenance condition. Please refer to the instructions in the separate operating manual of the extraction unit.

6.2. Readjusting the joints

Readjusting is necessary when

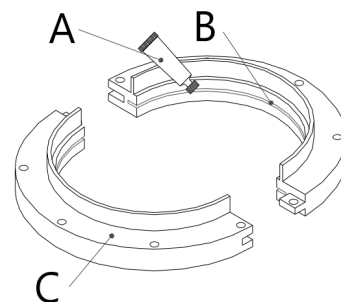
- the telescope arm is hard to move,
- the telescope arm sinks or backs down.

For readjusting proceed as described in chapter “Adjusting of the joints”.

6.3. Relubricating the plastic flanged ring

The plastic flanged ring must be relubricated at regular intervals. At the latest, however, when the suction arm can no longer be rotated easily.

The procedure is described in the chapter “Lubricating the plastic flanged ring”.



7. Dismantling / Disposal

Only authorised personnel may disassemble the machine.

	CAUTION	
	<p>Whirling up dust is possible due to the deposited dust. During all work a suitable respiratory protection and protective clothing have to be worn.</p>	

8. Diagnostics and troubleshooting

A list of possible system errors is provided in the table.

A recommissioning of the device must only occur if it is ensured that the system is functionally equivalent to the original state. Repairs may only be carried out by TEKA personnel or, after consultation with TEKA GmbH, by the personnel authorised by the operator.


Adhere to the instructions in the chapter "Safety instructions" and "Maintenance" when carrying out any repairs. If in doubt, contact our TEKA service department:

Tel: +49 2541-84841-0

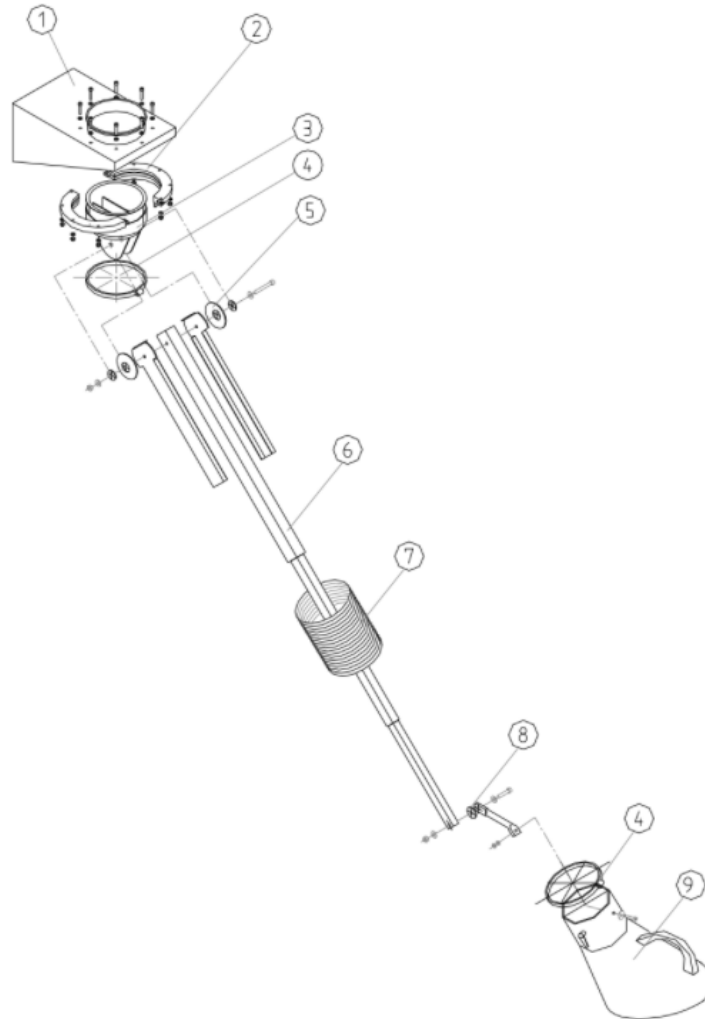
E-mail: info@teka.eu

Fault	Cause	Removal
No suction / minimal suction (Smoke/fumes/gases are not extracted at all or only slightly).	telescope arm not connected to the extraction unit.	Connect the telescope arm to the extraction unit.
	Damage to the hoses / pipes.	Replace the hoses / pipes.
	Hoses / pipes are restricted / blocked.	Check the suction channel, remove any obstacles that are found.
	The throttle valve at the suction hood is closed.	Open the throttle valve.

9. List of spare parts

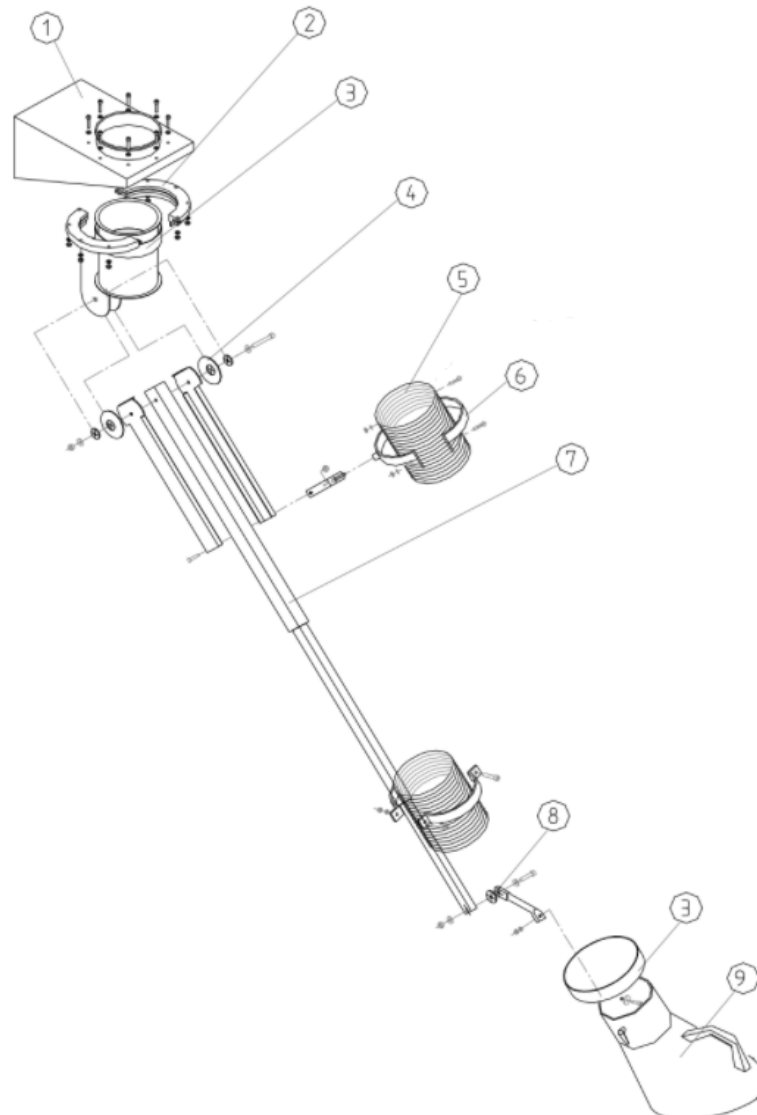
 The parts lists only treat the telescope arms of nominal diameter 150 mm. Spare parts for other nominal widths are to be requested separately.

9.1. Hose type, with internal joints



Pos.	Designation	Art-No.
1	Wall console	96010
2	Plastic bearing ring, two-part	10421
2.a	Stabilizing flange, split (see chapter 5.1.4.)	402429005
-	Lubricating paste for plastic bearing ring (Pos.2)	4090000008
3	Rubber band	1003310001
4	Hose clip; 2 pcs	10228
5	Brake disk Ø 100; 2 pcs	1019070002
6	Telescoping 3-pipe-set, L=1490mm	976900
7	Hose for 2 m telescope arm	1019220
8	Brake disk Ø 55; 1 pcs	1019070003
9	Extraction hood	66200

9.2. Hose type, with external joints



Pos.	Designation	Art-No.
1	Wall console	96010
2	Plastic bearing ring, two-part	10421
2.a	Stabilizing flange, split (see chapter 5.1.4.)	402429005
-	Lubricating paste for plastic bearing ring (Pos.2)	4090000008
3	Rubber band	1003310001
4	Brake disk Ø 100; 2 pcs	1019070002
5	Hose for 2 m telescope arm	1019220
6	Pipe clip NW160; 2 pcs	41415
7	Telescoping 3-pipe-set, L=1490mm	976900
8	Brake disk Ø 55; 1 pcs	1019070003
9	Extraction hood	66200

10. Technical data

Allowed ambient temperature	°C	+5 to +35 (during operations) -10 to +40 (during transport and storage)
Allowed max. humidity	%	70

11. Maintenance intervals

11.1. Usage-related maintenance

The described maintenances become necessary through the demands of the system operations. The maintenance intervals are recommendations. Depending on the application (multi-shift operation, dust generation, ...) it may make sense for the operator to change the intervals of maintenance, replacing and cleaning.

Maintenance work must always be documented by means of a protocol.

The approach of the maintenance measures is described in chapter "Maintenance".

Maintenance work	Chapter	Maintenance interval	
		recommended by TEKA	determined by the operator
Readjusting the joints/check if readjusting is necessary	6.2	monthly	
Relubricating the plastic flanged ring / check if relubricating is necessary	6.3	annually	

11.2. General maintenance


The described maintenances are independent from the demands of the system operations.

Maintenance work must always be documented by means of a protocol.

Maintenance work	Chapter	Maintenance interval
Visual inspection of the telescope arm	11.2.1	weekly

11.2.1. Visual inspection of the telescope arm

Visual inspection: Observation that there are no visible safety-related defects.

	WARNING
Danger arising from the ready to operate condition of the device. Follow the procedure as described in the chapter "Set to maintenance state".	

The following steps must be carried out in the course of the visual inspection:

- Check the telescope arm for leakages, escaping dust and dust deposits. Dust deposits must be eliminated.
- Check the telescope arm for damages. If necessary, replace parts.