#### Operating and Maintenance Instructions for

**Head Stock** 

Ord.No. 786-00

#### 1. Intended Use / Product Description





Medium: Potable Water, Municipal Sewage, Gas

Material: See table with list of components, example of installation

#### Head stock with handwheel / Head stock with handwheel and position indicator:

Suitable for use with valves: E2/E3 gate valve DN 50-200, wastewater gate valve DN 80-200, PRO butterfly valve (buried / manually actuated plant installation) DN 150-600

#### Head stock for electric actuator / Head stock for electric actuator with position indicator:

Suitable for use with valves: E2/E3 gate valve DN 50-200, wastewater gate valve DN 80-200, **NOT** suitable for PRO butterfly valves.

All head stocks with 4 boreholes Ø16 mm, hole circle 194 mm at the foot flange for fixing the standpipe.

The head stock can be used for the above-ground actuation of valves in underground installations, in manholes or in valve chambers. It is connected to the valve by means of a telescopic extension spindle, Order No. 952-00:

The optionally available position indicator allows the respective degree of opening of the valve (open / closed) to be displayed. Visualization is effected via a slide ring, mounted on the standpipe, which is magnetically coupled to an internal mechanism, and is moved along the standpipe when the head stock is actuated. The color-coded labeling mounted on the standpipe indicates the degree of opening.

The position indicator can also be retrofitted to the head stock (see Accessories). The pleasant working height (940 mm) ensures that the head stock can be operated ergonomically by means of a handwheel.

The max. operating temperature when using the position indicator is -30°C to 60°C. Exceeding the temperature specified may result in permanent damage to the magnets.

Before reading the position indicator, the user must ensure that the position indicator is functioning correctly. If severe environmental conditions (e.g. wintry weather) prevail, the function of the position indicator must be assured or restored by taking appropriate measures.



#### Warning: Cardiac pacemakers

Magnets can affect the function of pacemakers and implanted defibrillators. A magnetic impulse could cause the pacemaker to change mode. A defibrillator may potentially cease to function. If you are a user of such devices, make sure that you maintain a sufficient distance. If necessary, warn others who may be affected.



#### **Caution: Magnetic fields**

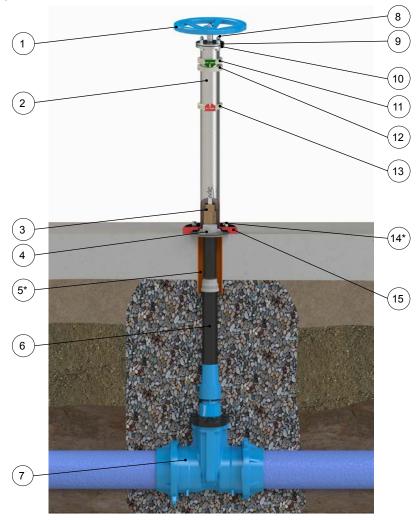
Magnets generate powerful magnetic fields that extend far and wide. They may, for instance, damage electronic devices such as TV sets, PCs, laptops, hard drives, credit and EC cards, data carriers, mechanical watches, hearing aids and loudspeakers. Magnetically conductive parts can be attracted to magnets. Keep magnets away from all devices and objects that can potentially become damaged by powerful magnetic fields. Do not place any ferrous tools, knives, etc. in the vicinity of magnets.



Important: Protect all magnets from contamination!

During installation and maintenance operations, the applicable standards and guidelines, accident prevention regulations and the regulations of professional associations are to be observed and complied with. Installation and maintenance operations may be performed by qualified personnel only.

#### **Example of installation:**



Pos.	Short description	Material
1	Handwheel Ø320mm	Cast iron, Hawle epoxy powder coating with UV protective varnish
2	Head stock	Stainless steel
3	Coupling socket	Red brass
4	Plastic insert	PP
5*	Protective tube	
6	Telescopic extension spindle Ord.No. 952-00	
7	Isolation valve	
8	4x screws, nut, washer	Stainless steel
9	Bearing flange	Stainless steel
10	Transition flange	Stainless steel
11	Position indicator "Auf / open"	Plastic
12	Slide ring with magnet	Plastic neodymium, coated
13	Position indicator "Zu / close"	Plastic
14*	4x fixing elements	
15	Locating ring	Stainless steel

<sup>\*</sup> to be provided by the customer

#### **Accessories:** (See separate operating instructions)



#### 2. Assembly



Operating key, Allen wrench size 4 and 8, open-end wrench SW15 and SW17

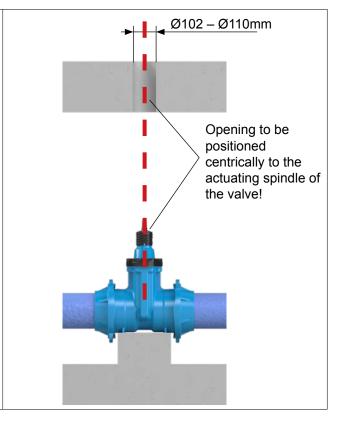
Installing in a shaft structure/valve chamber
Create opening

min. Ø102 - max. Ø110 mm

• Installing in earthwork

A passage is made through the protective tube (see 2.2)

**NOTE:** Telescopic extension spindle, Ord. No. 952-00, can be routed from above through an opening of min.  $\emptyset$  102mm if required.



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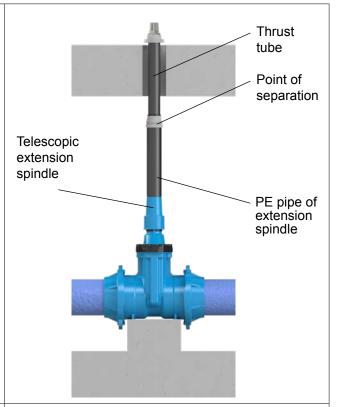
# Installing in a shaft structure/valve chamber Mount the telescopic extension spindle (ES) on the valve and guide it through the opening.

Guide the ES over the installation surface of the head stock to allow the plastic insert (4) to be installed at a later stage.

The installation surface of the head stock must be level and aligned at right angles to the pipe axis of the ES. The substrate must be capable of absorbing the resultant forces.

**Caution:** When using an actuator, the actuating torque is transferred to the substrate via the standpipe.

Stabilize the ES sufficiently. Install a suitable fastening element (e.g. wall or ceiling bracket) below the point of separation on the PE pipe. An additional fastening element is required for free lengths exceeding 2 m. This must be attached to the thrust tube once the head stock has been successfully installed. It must be possible to remove the additional fastening at a later point in time.



#### 2.2 • Installing in earthwork

Installing in earthwork

Mount the telescopic extension spindle (ES) on the valve.

Guide the ES over the future installation surface of the head stock so that the plastic insert (4) can be fitted.

The installation surface of the head stock must be level and aligned at right angles to the tube axis of the ES. The substrate must be capable of absorbing the resultant forces.

**CAUTION**: When using an actuator, the actuating torque is transferred to the substrate via the standpipe.

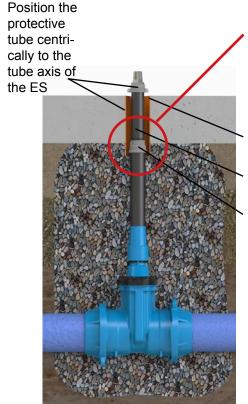
Protect the thrust tube of the ES including the point of separation from the filling material by means of a suitable protective tube.

The protective tube ensures the subsequent height adjustment of the ES. Height adjustment is absolutely essential for the next steps in installing the head stock!

Protective tube: inner Ø min. 100 mm

Outer Ø max. 115 mm

Dimension the length of the protective tube so that it protrudes above the future ground level. After the ground level has been established, shorten the tube so that it is flush with the ground surface.



Protective tube must extend to at least below the point of separation!

Protective tube
Thrust tube

Point of separation

#### 3 Producing connection bores:

Center the plastic insert on the opening/lead-through and insert the retaining brackets of the extension spindle into the recesses of the plastic insert.

Install the locating ring without the O-ring.

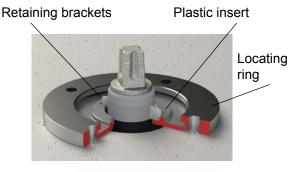
**CAUTION**: The mounting position of an actuator is determined by the hole pattern of the transition flange.

Determine the alignment of the transition flange holes and position the locating ring holes accordingly.

Mark the boreholes over the specified bores on the locating ring on the substrate, hole circle 194 mm.

Remove the locating ring and plastic insert.

Drill holes and perform any work necessary to make the connection bores.



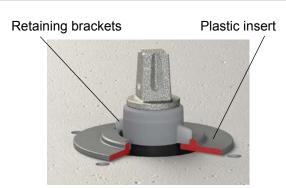


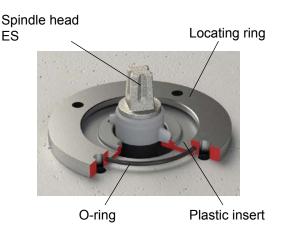


#### 4 Installing the head stock

Fit the plastic insert and hook the retaining brackets of the extension spindle into the recesses of the plastic insert.

Align the locating ring and the inserted O-ring Ø157x 6 with the plastic insert.





#### Head stock with position indicator model:

Set the valve to the open position by actuating the extension spindle.

Position the feed nut of the position indicator 5 turns away from the upper stop of the spindle.

#### Head stock with handwheel:

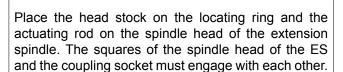
Positioning can be achieved by turning the handwheel, for example. Adjustment should only be carried out using minimal manual force! Feed nut is already positioned in the upper area of the spindle at the factory!

(Turn counterclockwise until the upper end of the spindle is reached - then rotate 5 turns in a clockwise direction).

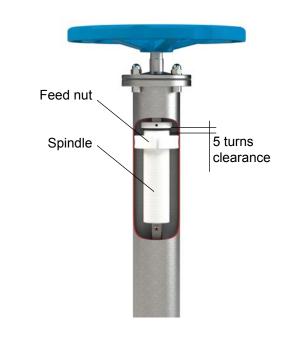
It is not essential to dismantle the inner rodding.

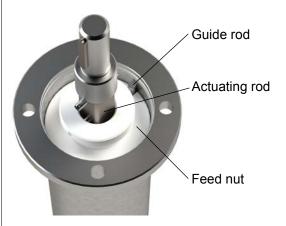
#### **Head stock for actuator:**

Remove the actuating rod by pulling it upwards. Position the feed nut, then align the longitudinal groove of the feed nut with the guide rod of the standpipe and insert the actuating rod into the standpipe.



Secure the head stock with appropriate fixing elements.







#### 5 Adjusting the position indicator

Move the slide ring upwards and magnetically couple it to the internal mechanism (tightening torque of the slide ring 0.5-1 Nm).

Set the position indicator to "Auf / Open" and clamp it to the pipe using M5 Allen screws (tightening torque 1 - 1.5 Nm).

Move the valve to the closed position. The slide ring will then travel downwards along the head stock.

Set the position indicator to "Zu / Close" and clamp it to the tube using an M5 Allen screw (tightening torque 1 - 1.5 Nm).

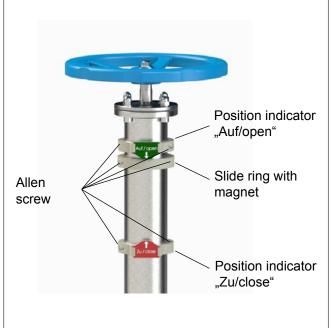
## Additional information for head stock for actuator models



**IMPORTANT**: The settings of the installed valve must be observed.

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**IMPORTANT:** When using actuators which have not been supplied by Hawle, it is essential to consult the Application Engineering department!



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### 3. Commissioning and Pressure Test

After the head stock has been successfully installed, a functional check must be performed. The correct setting of the position indicator must be verified by a trial run.

#### 4. Maintenance and servicing

The head stock is maintenance free.

#### If you have any other questions or if you need more information please contact:

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