

WE CARE.

 **HECHT**
technologie

SAMPLING





GENERAL



It is a key topic within any kind of industry and branch to maintain a constant and steady product quality. Guaranteeing a consistent high-level quality of chemical products, medication or nutrition and consumables is a fundamental requirement, long before focusing on the health aspect of the end user.

Permanent sampling and regular product analysis are essential for the identification of deviations and the necessary reactions to discrepancies. Samples must always be taken at exactly the right spot and in appropriate quantity.

HECHT samplers for powder or bulk products offer a simple handling whilst ensuring highest operator- and product protection.

All of our sampler versions are of robust structure and especially developed for industrial applications with e.g. limited construction height.

The easy-to-dismantle designs allow a validate cleaning process. Various versions for different installation methods, individual set-ups and a flexible adjustability of the systems ensure an optimal user comfort and constant process reliability.



SCREW SAMPLER



VACUUM SAMPLER



SPOON SAMPLER



OVERVIEW

The **HECHT Spoon Sampler** is a convenient inline sampling system with a flexible sampling vessel (spoon) that can be operated either pneumatically or manually.

The **HECHT screw sampler** is the ideal solution for a representative sampling of any kind of bulk material. At individually selectable time intervals, the defined amount of product is sampled either automatically or manually by means of a hand wheel.

The **HECHT Vacuum Sampler** is ideally suited for closed and automated inline-sampling of powders and granulated materials from a product column. The special design for flush-wall-installation was recently patented.



DESCRIPTION AND CONSTRUCTION



Whether for installation in silos or in downpipes – the **HECHT screw sampler** is the ideal solution for a representative sampling of any kind of bulk material.

At individually selectable time intervals, the defined amount of product is sampled either automatically or manually by means of a hand wheel.

A pre-installed self-cleaning function guarantees the validity of the samples.

Depending on our customers' requirements, we offer various connections for matching sample vessels as well as different sealing valves.

ADVANTAGES



- ♦ Installation in silos or downpipes possible
- ♦ Different diameters for screw samplers available
- ♦ Automated or manual sampling method
- ♦ Easy-to-dismantle version for simple cleaning



PROCEDURE



The sampling screw rotates into the material flow, extracts a representative cross-section from the production flow and transports it into a sample vessel. An adjustable timer determines the sample quantity.

Runtimes and pause times between two sampling operations are individually configurable. Before starting a further sampling process, the screw changes to reverse operation for a self-cleaning cycle.

The product conveyed during the self-cleaning process is fed back into the production flow. Different systems like stuffing boxes / gland seals or a shaft ring seal ensure a final sealing. To guarantee a considerate and gentle product handling, it is recommended to install a counter-bearing.

OPTIONS

- ♦ Downpipe: The sampler is installed between two flanges inside the downpipe
- ♦ Silo: The sampler is installed to a nozzle welded to a silo wall

An outlet cover (flap, ball valve or pinch valve) avoids product trickling or dust emission whenever the product vessel is disconnected.

Depending on the type of sample vessel HECHT offers various connection systems:

- ♦ Spring steel wire clamp (for small and light sample quantities)
- ♦ Quick action clamp (for large and heavier sample quantities)
- ♦ Thread connections for bottles

HECHT screw samplers can easily be combined with a sampling magazine or a sample collector with endless liner.



DESCRIPTION AND CONSTRUCTION



The **HECHT Vacuum Sampler** is ideally suited for closed and automated inline-sampling of powders and granulated materials from a product column.

The special design for flush-wall-installation was recently patented:

Due to its dead-space-free structure, the vacuum sampler neither contains mechanical parts protruding into the production flow, nor any hidden angles, which could complicate a thorough cleaning.

Therefore, it is ideally suitable for poor flowing products and high-level hygienic- and Containment applications.

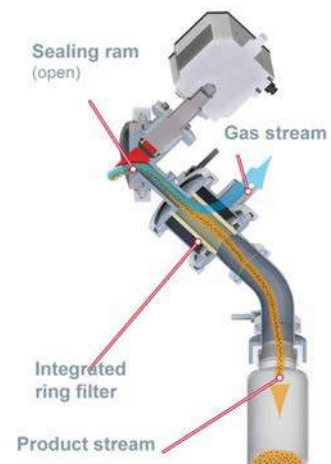
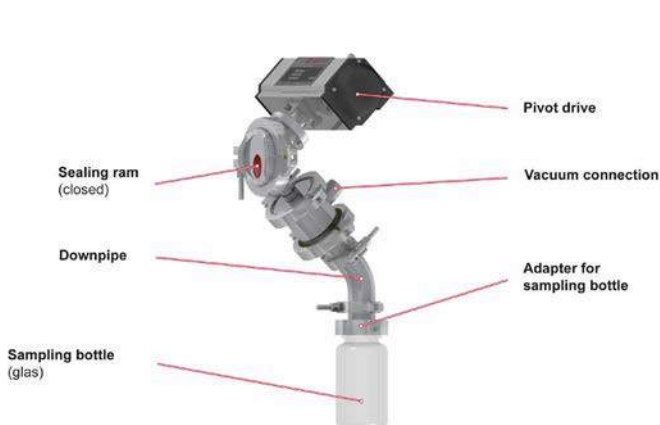
The pneumatic swivel drive opens the sealing valve via rotation (max. 180°) By means of a vacuum function, the product is aspirated from the product column.

An integrated ring filter avoids product loss in the vacuum pump.

As soon as the defined amount is collected in the glass bottle, the ring filter is cleaned with a pressure impulse and the sealing valve closes.



SETUP



ADVANTAGES

- ♦ Sampling process flexibly adjustable due to different sizes of the sealing valve, the opening degree and the opening time
- ♦ Vacuum-tight and pressure resistant (up to 2,0 bar)
- ♦ Production flow is permanently free of mechanic parts
- ♦ Easy Cleaning
- ♦ Fast and simple dismantling due to Tri-Clamp connections
- ♦ Single components are easy to clean manually, wet cleaning is possible
- ♦ Dead-space-free construction simplifies the cleaning considerably
- ♦ Sampling is possible from blenders, dryers, pressure vessels and stirring tanks

OPTIONS

- ♦ Additional (Glove-) Box for Containment applications
- ♦ Shut-off devices to seal the sampler and avoid trickling when no bottle is attached
- ♦ Expandable with sampling magazine for up to 24 samples or with endless liner.



DESCRIPTION AND CONSTRUCTION



The **HECHT Spoon Sampler** is a convenient inline sampling system with a flexible sampling vessel (spoon) that can be operated either pneumatically or manually.

The spoon sampler is perfectly suitable for installations in downpipes. Even poor-flowing products can easily be sampled and filled in various sample vessels.



Full cup with the sample is retracted again.

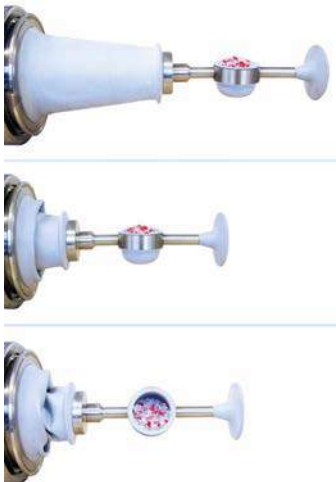


180° rotation of the cup; sample is tipped out in the down pipe



The beater is used for removing residues (when poor-flowing products are handled)

PROCEDURE



During the sample process with the HECHT spoon sampler, the empty spoon is inserted in the vertical product flow.

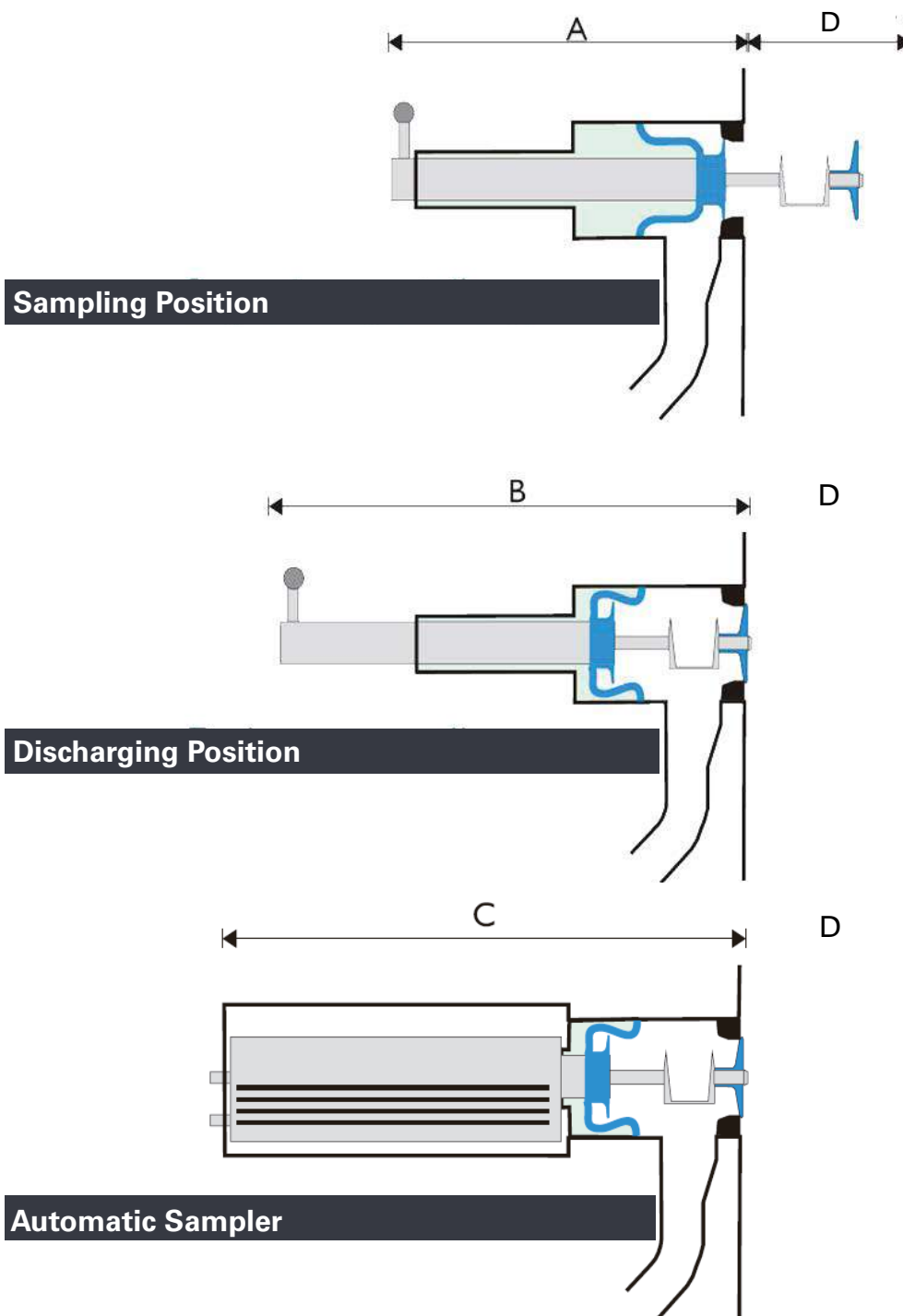
A previously defined amount of product can now be collected with the spoon. Following, the filled spoon draws back into the sampling case, rotates 180° and drops the sample product into a discharge nozzle or a collecting tank.

A special sealing unit protects the guidance for the longitudinal movement as well as for the rotation.

ADVANTAGES

- ◆ During the sampling process, the sampler does not interfere with the product flow
- ◆ By means of a small knocker it is possible to even discharge poor-flowing products from the flexible sampling vessel (spoon).
- ◆ Easy to dismantle (Tri-Clamps) and easy to clean
- ◆ Discharge into various sampling vessels (for example bottles); Connection to a sampling magazine or a sample connector with endless liner is possible

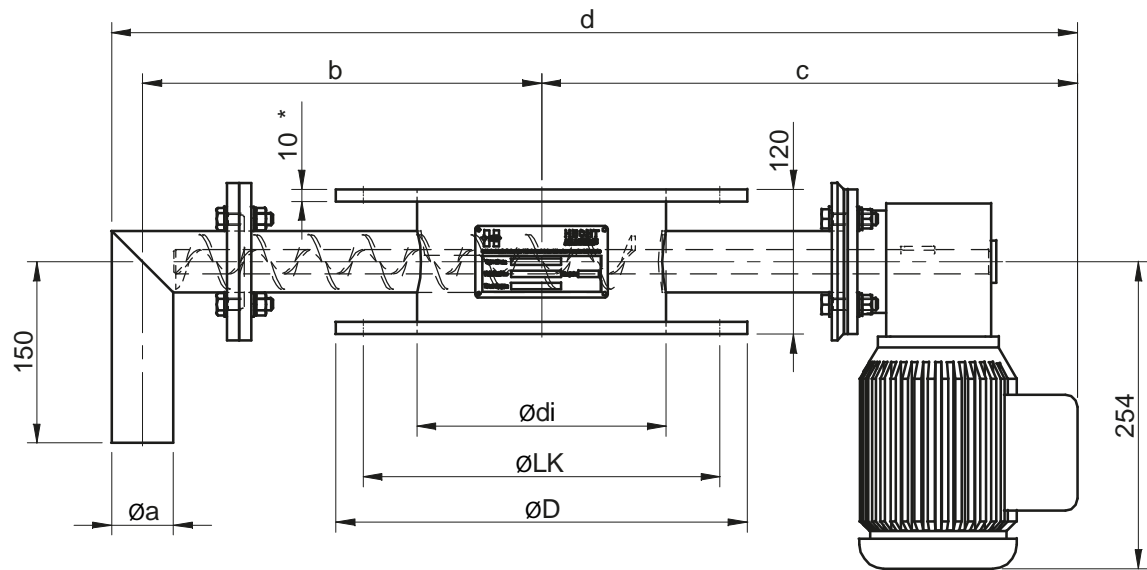


POSITION OVERVIEW


Pipe diameter D (mm)	150	200	250	300	400
Manual Sampler A (mm)	352	410	460	510	610
Manual Sampler B (mm)	452	510	560	620	710
Atom. Sampler C (mm)	468	518	568	618	718

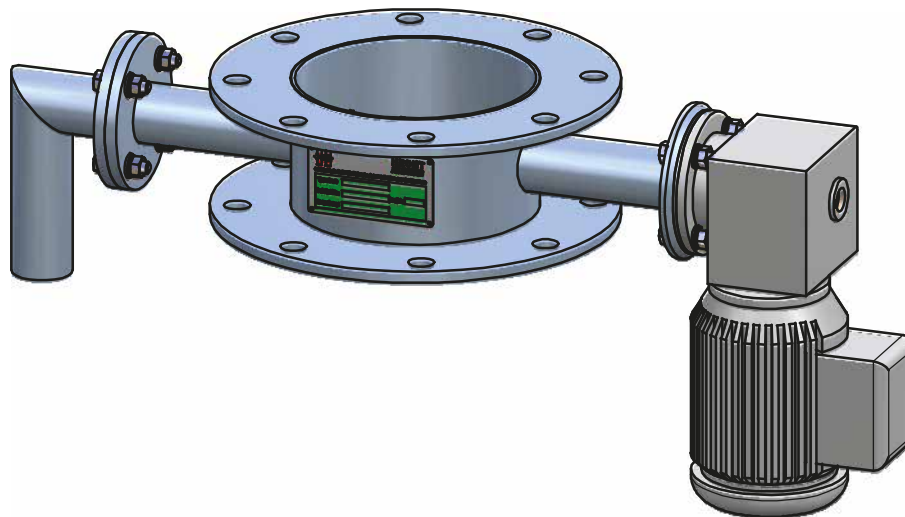


BASIC VERSION



motor can be bolted in different position
0° - 90° - 180° - 270°

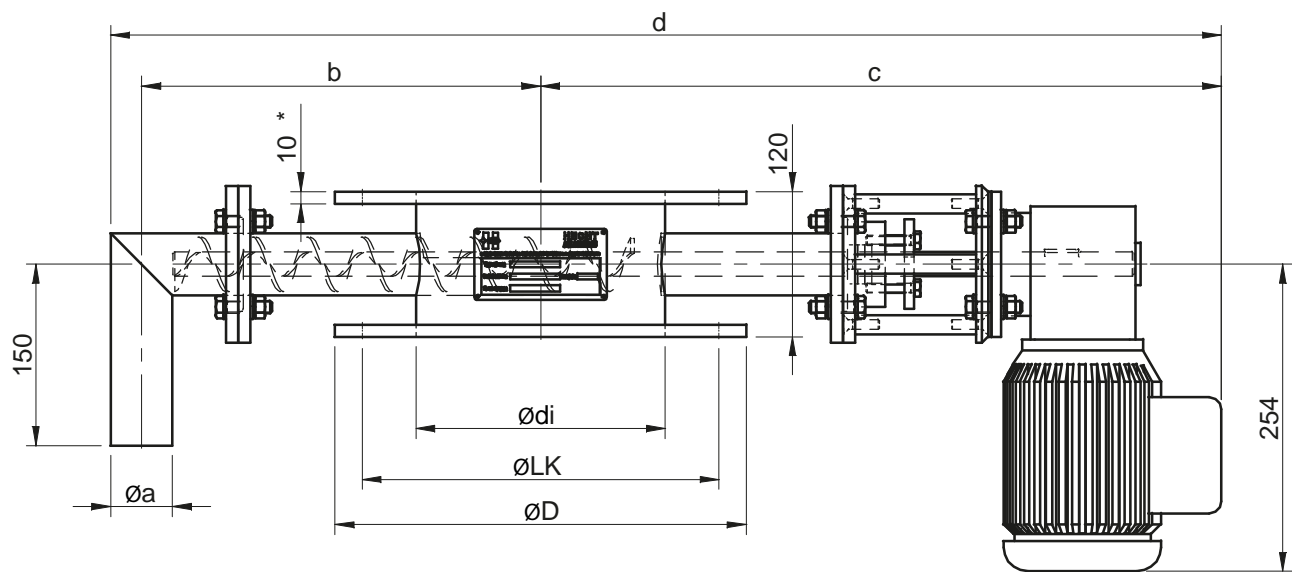
* reduced flange thickness



Measurements for helix Ø 25 / 45mm					Flange measurements according to DIN 2576		
DN	Ø a	b	c	d	Ø D	Ø Lk	Ø di
				mm			
200	32 / 51	330	443	788 / 798	340	295	200
250		355	468	838 / 848	395	350	250
300		380	493	888 / 898	445	400	300
400		430	543	988 / 998	565	515	400

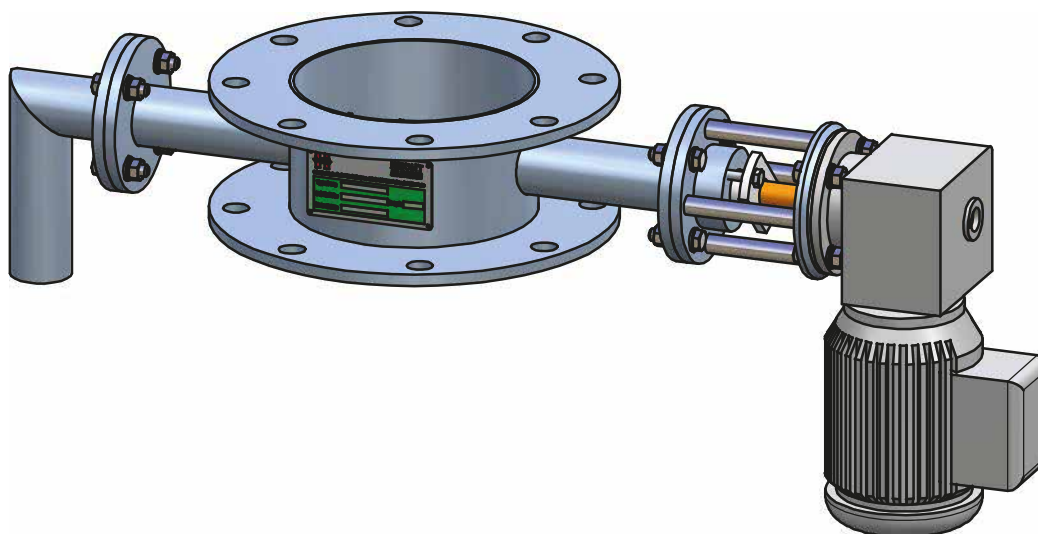


WITH GLAND BOX OR PURGE AIR SEALING



motor can be bolted in different position
0° - 90° - 180° - 270°

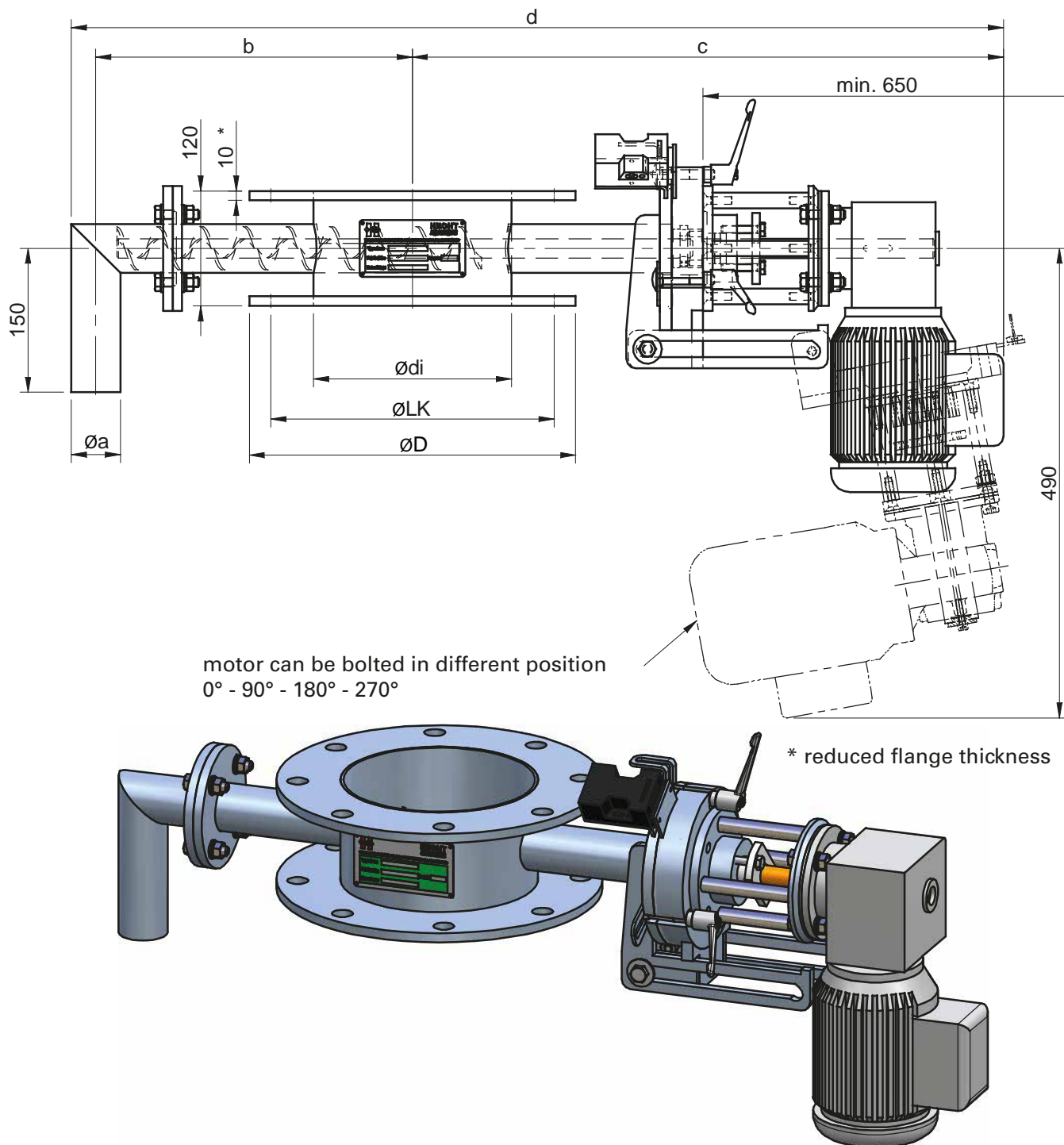
* reduced flange thickness



Measurements for helix Ø 25 / 45mm					Flange measurements according to DIN 2576		
DN	Ø a	b	c	d	Ø D	Ø Lk	Ø di
				mm			
200	32 / 51	330	563	908 / 918	340	295	200
250		355	588	958 / 968	395	350	250
300		380	613	1008 / 1018	445	400	300
400		430	663	1108 / 1118	565	515	400



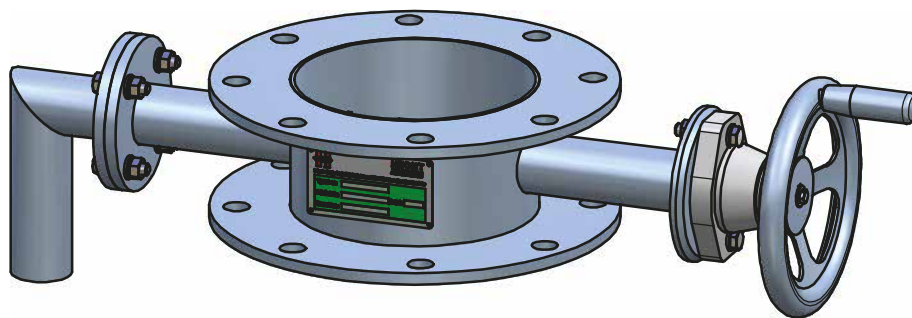
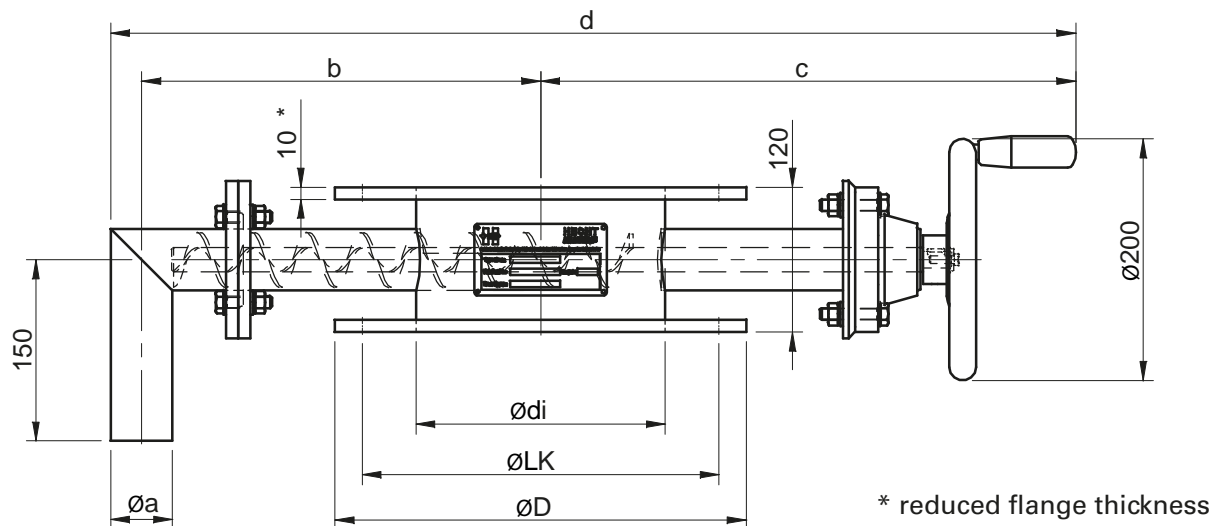
QUICK DISCONNECTABLE VERSION



Measurements for helix Ø 25 / 45mm					Flange measurements according to DIN 2576		
DN	Ø a	b	c	d	Ø D	Ø Lk	Ø di
				mm			
200	32 / 51	330	616	961 / 971	340	295	200
250		355	641	1011 / 1021	395	350	250
300		380	666	1061 / 1071	445	400	300
400		430	716	1161 / 1171	565	515	400



HANDWHEEL OPERATION



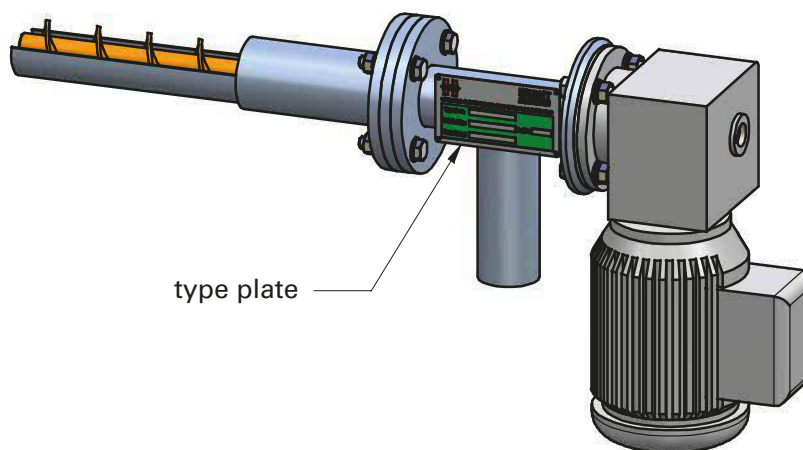
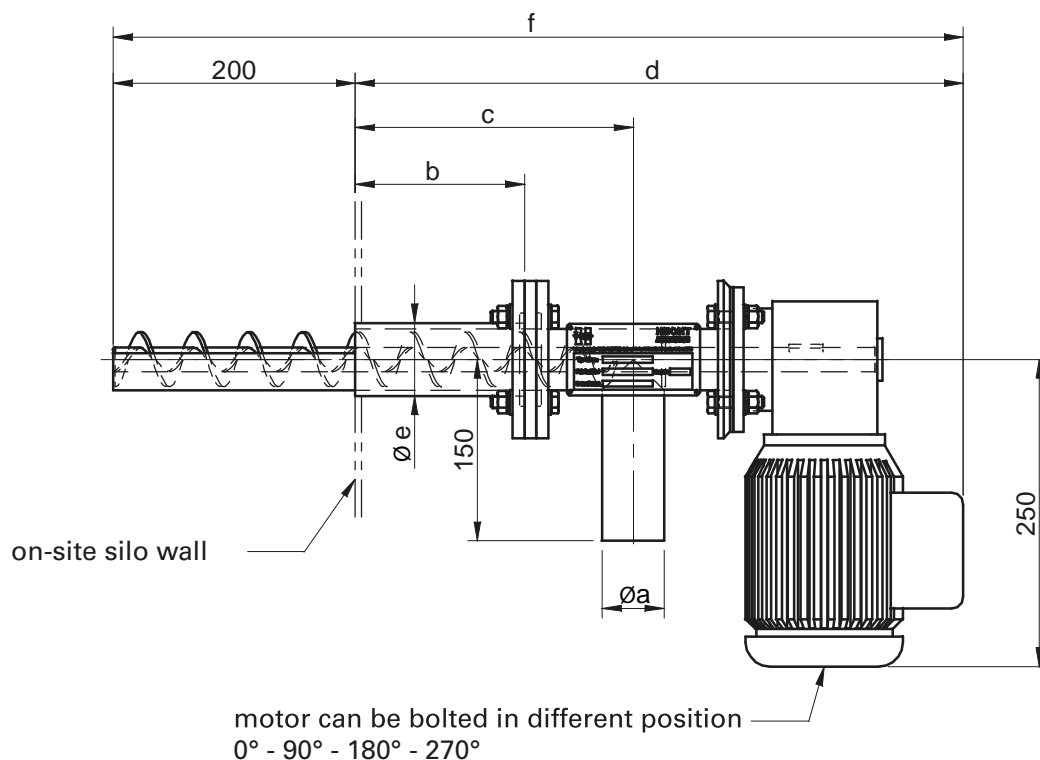
Measurements for helix Ø 25 / 45mm					Flange measurements according to DIN 2576		
DN	Ø a	b	c	d	Ø D	Ø Lk	Ø di
				mm			
200	32 / 51	330	443	788 / 798	340	295	200
250		355	468	838 / 848	395	350	250
300		380	493	888 / 898	445	400	300
400		430	543	988 / 998	565	515	400



Sampling Installation in silos or hoppers

DIMENSION
SHEET

BASIC VERSION



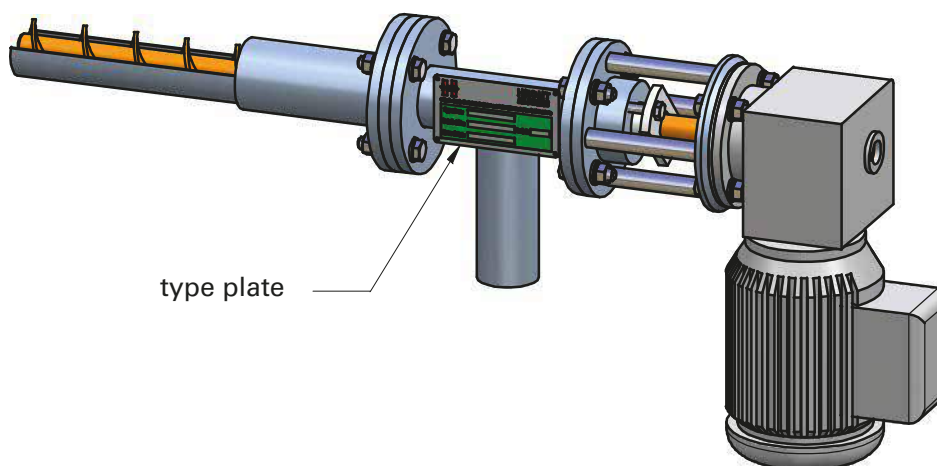
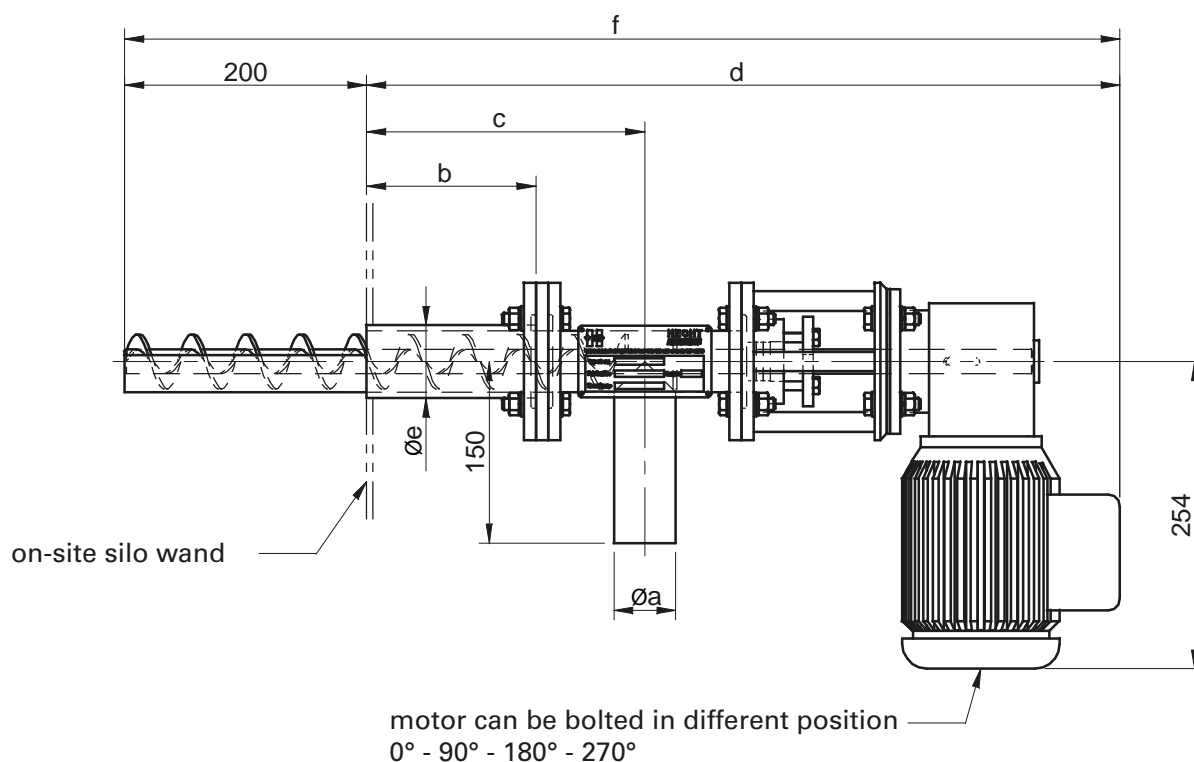
Ø screw shaft	Ø a	b	c	d	Ø e	f
mm						
25	32	100	180	443	40	643
45	51	140	230	503	60,3	703



Sampling Installation in silos or hoppers

DIMENSION
SHEET

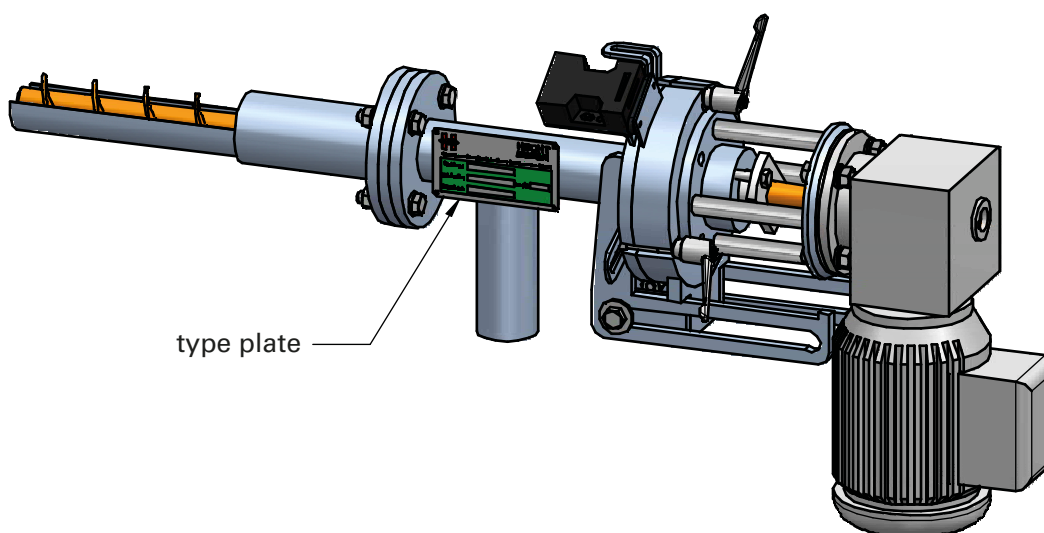
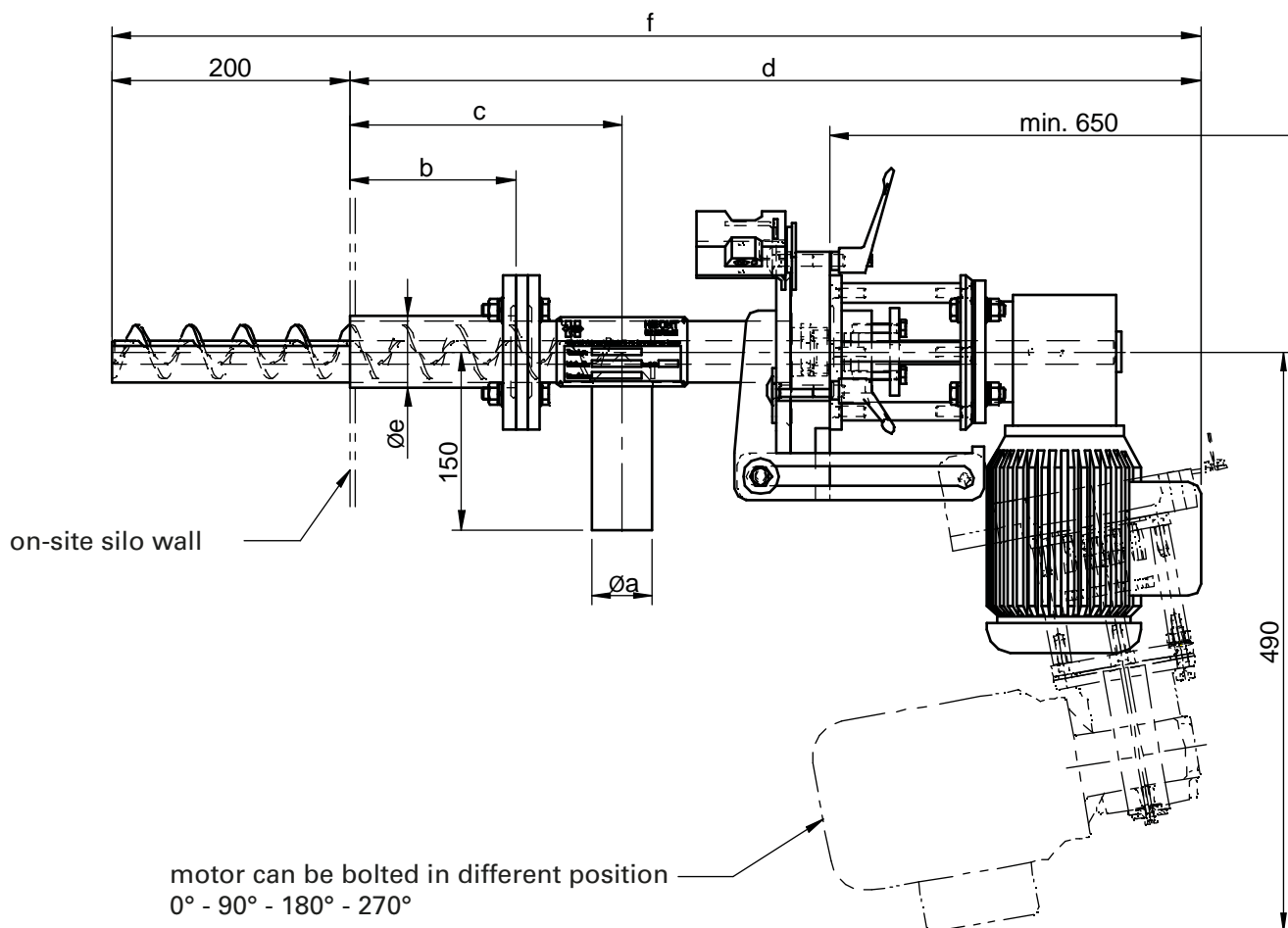
WITH GLAND BOX OR PURGE AIR SEALING



\varnothing screw shaft	$\varnothing a$	b	c	d	$\varnothing e$	f
mm						
25	32	100	180	563	40	763
45	51	140	230	623	60,3	823



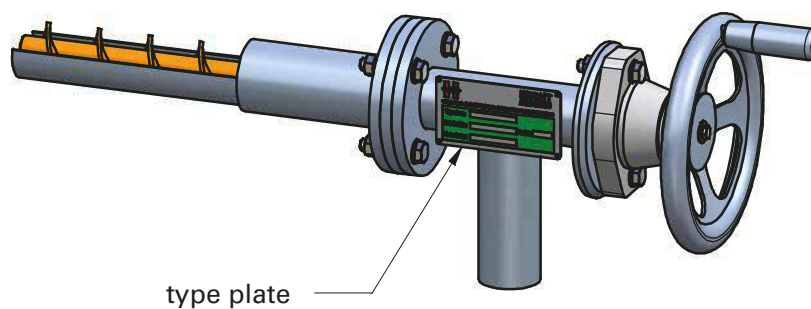
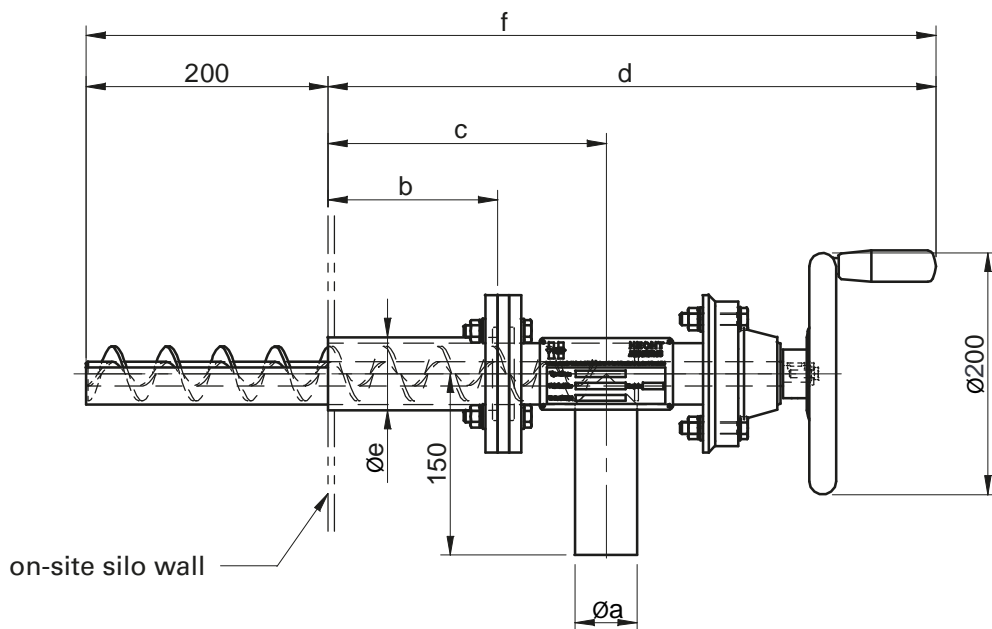
QUICK DISCONNECTABLE VERSION



\varnothing screw shaft	$\varnothing a$	b	c	d	$\varnothing e$	f
mm						
25	32	100	180	563	40	763
45	51	140	230	623	60,3	823



HANDWHEEL OPERATION



Ø screw shaft	Ø a	b	c	d	Ø e	f
mm						
25	32	100	180	442	40	642
45	51	140	230	502	60,3	702