

Product Recovery Technology



A member of NEUMO Ehrenberg Group

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* An asterisk in the pricing column means: on request	

Introduction

AWH Product Recovery Technology

AWH production is always in accordance with state-of-the-art technology. The machine outfit stands for precision, innovation and cost optimization. This is reflected in our products. Product recovery technology is an example of this. After all this is the technology that stands for efficiency, optimization and flexibility like no other. Savings potentials of 30% and more often can be realized.

This can be seen directly in

- increased product yield
- shortest downtimes
- enhanced utilization and capacity
- high flexibility
- minimal cleaning requirements

The use of product recovery technology should therefore always be taken into consideration during facility planning. An investment pays for itself within a very short time. Existing facilities can be supplemented in many cases with product recovery technology.

AWH itself is not engaged in plant construction. This allows our partners, namely plant constructors, to discuss their projects openly with us at any time. The experience gained thereby is incorporated directly into the development. We are able to implement a wide variety of concepts with great flexibility, thanks to our custom manufacturing. As a partner you can rely on us. Achieving success together in our respective areas of expertise.

Simply get in touch! We would be happy to help you.

Technology

Pigging is a displacement technology.

An accurately fitted body, the pig, travels through the pipe and pushes the content in front of it. The necessary forward thrust is provided by external power. Gases (compressed air, nitrogen, etc.) or liquids (water, cleaning media, etc.) or even a subsequent product can be used as the drive medium.

All pumpable media is also piggable.

Utilization is in the area of the

- food and beverage industry
- cosmetic industry
- chemical industry
- pharmaceutical industry

The main application of product recovery technology is to be found in the emptying of a pipe system. This yields a wide array of advantages. The product is practically 100% usable. Cleaning costs are considerably reduced as a direct result. This is because residual product need not first be rinsed out of the pipeline at great effort and expenditure of time.

As is the case with products, cleaning agents can rapidly removed again from the system. This reduces downtimes and the expulsion of wastewater to a minimum. The facility is again ready for operation in a very short time. In addition, the product recovery technology offers reliable media separation. Subsequent products can thus be transferred without mixing zones.

The process is a form of mechanical pipe cleaning. An overgrowth of pipe systems is reliably prevented. The efficiency of the plant is guaranteed on a continuous basis and the service life is extended. Direct emptying of systems makes it possible to dispense with trace heating and greater flexibility exists in terms of pipe geometry.

The pig is an elastic, solid body that must provide reliable sealing in the pipe for functional purposes.

Pipe

As a basic rule, the pipeline must exhibit the same, circular diameter along the entire pigging section.

- internal diameter tolerance: $\pm 0.5\%$ nominal diameter
- ovality tolerance: $\pm 0.5\%$ nominal diameter

Pipes with longitudinal welds with seam smoothing and an internal roughness of $Ra < 0.8$ ($Ra < 1.6$ in the area of the weld seam) are to be used. Pipe in accordance with DIN EN 10357, DIN 11866, DIN 2430 is suitable.

Pipe connections

All detachable and non-detachable pipe connections must be implemented without offsets along the entire pigging section.

- Tolerance offset: ± 0.2 mm

Screw connections, flange connections or clamp connections in accordance with DIN 11864 or DIN 2430 are to be used.

Weld seams should be orbital-welded wherever possible. Manually welded seams are permissible and their performance should be professional and of high quality.

- Permissible sag of weld seams (reinforcement): 0.5 mm

Pipe bends

The pigging design and the bending radius of pipe bends have reciprocal effects on each other.

- AWH tangent pig: minimum bending radius $R_{min} = 1 \dots 1,5D$ (BA2/3, DIN 2605)
- AWH lip pig: minimum bending radius $R_{min} = 2,5D$ (BA5, DIN 2605)

Branches

The pig sealing must be ensured when t-branches are passed through. The use of product recovery technology requires specially designed t-pieces. These are equipped with a guide on the branch. The pig is kept reliably on its path, does not fall into a downward-directed outlet and cannot become jammed.

- AWH tangent pig: Nominal width of outlet = nominal width of pipe
- AWH lip pig: Nominal width of outlet = one nominal width less than the nominal width of the pipe

Project Questionnaire - Product Recovery Technology

return to: Armaturenwerk Hötensleben GmbH · Schulstr. 5 - 6 · 39393 Hötensleben, Germany · Fax: +49 39405 92-111, E-Mail: info@awh.eu

Date:

Project designation:

Contact person:

Company:

Street:

City / ZIP code:

Tel / Fax:

E-mail:

Line of business:

Food/beverage

Cosmetics industry

Chemical industry

Pharmaceutical industry

other

Pipe system:

Pipeline length:

m

Height difference:

m

Nominal width:

Pipe norm/standard:

Outside diameter:

mm

Wall thickness:

mm

Inside diameter:

mm

Product inlets:

Item

Product outlets:

Item

new

existing

insulation

trace heating

Operating and process parameters:

Pressure:

bar to

bar

Temperature:

°C to

°C

Capacity/turnover:

m³/h to

m³/h

Hygiene standard: flushable

completely CIP-capable

aseptic

sterile

Cleaning agent:

Temperature of the cleaning medium:

°C

Duration of the cleaning:

min

Project Questionnaire - Product Recovery Technology

Product:

Type/Division:

Density:

kg/m³

Viscosity:

mPas (cP)

Containing particles/fibrous/lumpy

(Particle size:

mm x

mm)

Sliding properties:

supportive effect

inhibiting effect

toxic

flammable

hazardous

Special features/remarks:

Requirements:

Product ejection

Product separation

Manual actuation

Automatic actuation

One-way operation

Shuttle operation

Electronically controlled

Integration in process management system

Drive medium: gaseous (.....)

liquid (.....)

Enhanced requirements/Certificates/Regulations:

Comments:

A special distinction exists between liquid and gaseous drive media.

Gases can be compressed. The pig run is influenced by this behavior. A constant pressure can lead to high pig accelerations and speeds. Similarly, different conditions in the pipe system will lead to non-harmonious pig movement. This could lead to temporary standstills and subsequent strong accelerations.

Prerequisites for constant pigging process with gaseous propellants:

- sufficient volumetric supply
- regulation of the volume flow rate

Dry running of the pig through the pipe system is not permitted.

The pig is subjected to severe strain from friction by the sealing and by its movement in and through the pipeline. During operation, media reduce the friction between pig and pipe and acts as a lubricating film. If this support is absent, the pig will be exposed to a greater amount of wear or will be destroyed by friction heat.

Safety

The active principle of the pigging is in connection with energies in the form of pressing and the accelerated masses that result from it. This results in risks, not only for plants but also for personnel.

In order to minimize risks for plants or plant components, the following always applies:

- maximum permissible pig speed: 1.5 m/s
- maximum permissible pig acceleration: 1 m/s²

In order to minimize risks for personnel, the following always applies:

- open pipe ends from which the pig can freely exit are not permitted
- the pig can be manipulated only in a pressure-compensated state
- the necessary technical provisions for pig location and safeguarding must be present
- manual access to the pipe system or to fittings must be prevented during the pigging process by suitable measures

When used properly and in compliance with the operating and safety regulations, AWH pigs and (pig) fittings are safe. The fittings should be installed only in designated systems and operated only by qualified, specialist personnel.

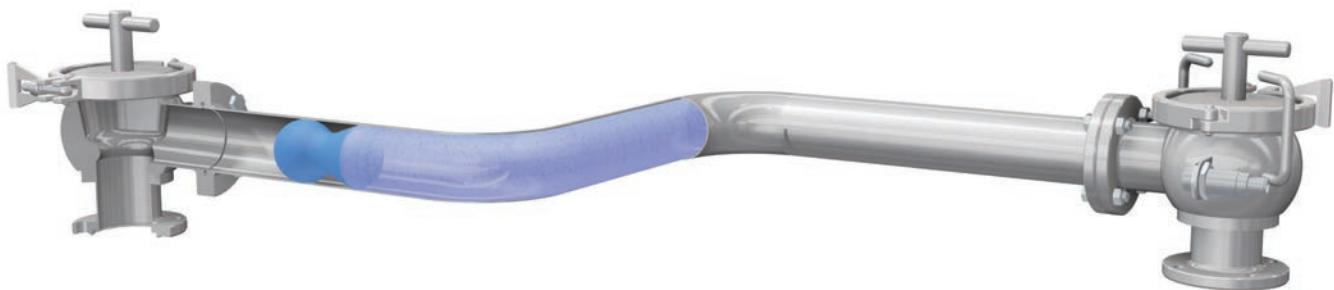
For accelerated project processing, please fill out the questionnaire and send it back to us. Supplementary materials in the form of sketches and/or a product data sheet make it possible for us to propose a suitable concept in a short time.

Date

Signature

Notes

Manual Product Recovery System



Properties

Components: sending and receiving station

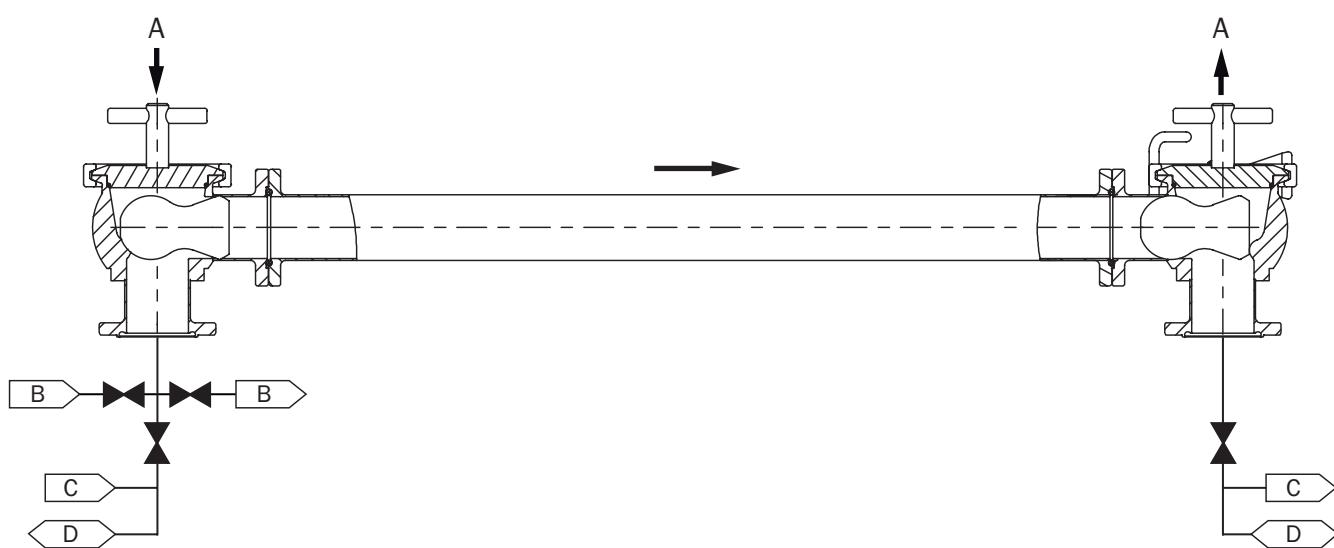
Features: safe, simple and inexpensive introduction to pushing out product
hygienic design for simple cleaning capability

including holders for pig sensors

Actuation: insertion and removal of the pig by hand

Accessories: supply fittings, driver controller, load removal cyclone, tangent pig, lip pig, sensors (not included in scope of delivery)

Flow Chart



A Pig

B Drive medium

C Product

D Cleaning/CIP

Technical Parameters

Materials: 1.4404 (316L) (contact with product), 1.4301 (304)

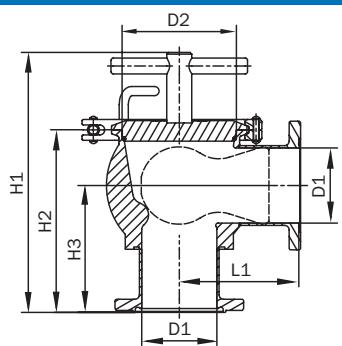
Pressure stage: PN 10, others on request

Seals: EPDM, others on request

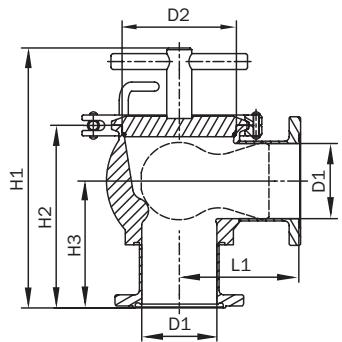
Installation orientation: horizontal preferred

Connections: flange connection according to DIN 11864, others on request

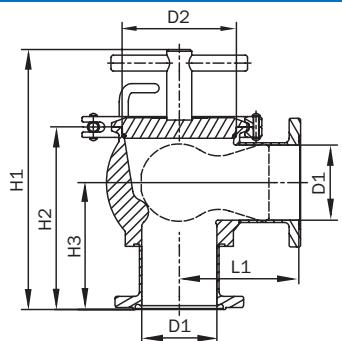
Manual Product Recovery System



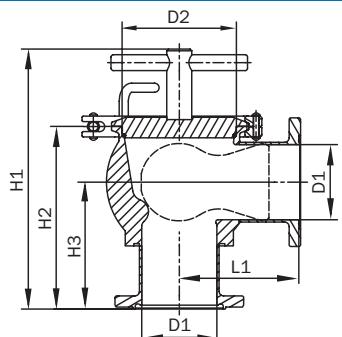
for pipe DIN EN 10357, Series A



for pipe DIN EN 10357, Series D



for pipe DIN EN 10357, Series C



for pipe DIN EN 10357, Series D

Sending/Receiving Station Series A

DN DIN	D1	D2	H1	H2	H3	L1	Weight [kg]	Price/EUR	Article No.
25	26	44.5	145	100	66.5	64	2.0	546,70	6807 0005 002/1
40	38	66.5	172	114	78.5	80	3.5	611,60	6807 0007 002/1
50	50	81.5	190	132	89.5	88	5.5	684,80	6807 0008 002/1
65	66	100.5	229	161	111.5	105	8.0	831,40	6807 0009 002/1
80	81	125.5	256	182	116.5	126	15.0	981,10	6807 0010 002/1
100	100	150.5	282	208	127.5	141	24.5	1195,60	6807 0012 002/1

Sending/Receiving Station Series D

DN Inch	D1	D2	H1	H2	H3	L1	Weight [kg]	Price/EUR	Article No.
1"	22.1	44.5	145	100	67.5	64.5	2.0	551,80	6807 0054 002/1
1 1/2"	34.8	66.5	172	114	78.5	80.5	3.5	619,40	6807 0057 002/1
2"	47.5	81.5	190	132	89.5	88.5	5.0	694,80	6807 0058 002/1
2 1/2"	60.2	100.5	229	161	111.5	107	8.0	849,30	6807 0059 002/1
3"	72.9	125.5	254	180	114.5	126.5	15.0	1001,60	6807 0060 002/1
4"	97.38	150.5	282	208	127.5	141.5	24.5	1215,70	6807 0062 002/1

Sending/Receiving Station Series C

DN ISO	D1	D2	H1	H2	H3	L1	Weight [kg]	Price/EUR	Article No.
33.7	29.7	44.5	150	105	72.5	62.5	2.0	553,30	6807 0079 002/1
48.3	44.3	81.5	180	122	83.5	87.5	4.5	621,70	6807 0081 002/1
60.3	56.3	100.5	228	154	104.5	106	7.0	702,20	6807 0082 002/1
76.1	72.1	100.5	244	169	116.5	108.5	9.0	854,30	6807 0083 002/1
88.9	84.3	125.5	256	182	116.5	125	14.5	1011,90	6807 0084 002/1
114.3	109.7	150.5	285	211	130.5	137.5	22.0	1235,40	6807 0085 002/1

Sending/Receiving Station Series D

DN SMS	D1	D2	H1	H2	H3	L1	Weight [kg]	Price/EUR	Article No.
25	22.5	44.5	145	100	67.5	64.5	2.0	551,80	6807 0091 002/1
38	35.5	66.5	172	114	78.5	80.5	3.5	619,40	6807 0092 002/1
51	48.5	81.5	190	132	89.5	88.5	5.0	694,80	6807 0093 002/1
63.5	60.5	100.5	235	161	111.5	107	8.0	849,30	6807 0094 002/1
76.1	72.9	125.5	254	180	114.5	126.5	15.0	1001,60	6807 0095 002/1

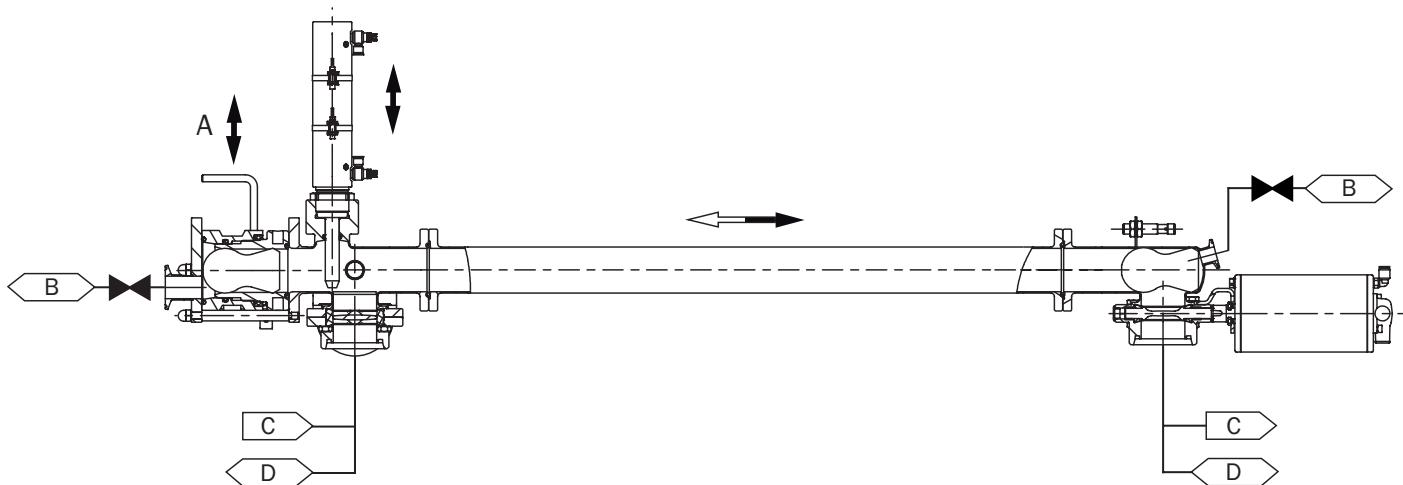
Automated Product Recovery System



Properties

Components:	plug-in chamber and end chamber
Features:	safe, automatic system for pushing out product integrated pig lock or separation from product pipe
Actuation:	automatic, shuttle operation
Accessories:	supply fittings, drive controller, load removal cyclone, tangent pig, lip pig, sensors (not included in scope of delivery)

Flow Chart

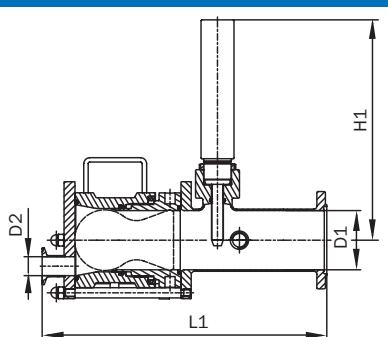


- A** Pig
- B** Drive medium
- C** Product
- D** Cleaning/CIP

Technical Parameters

Materials:	1.4404 (316L) (contact with product), 1.4301 (304)
Pressure stage:	PN10, others on request
Seals:	EPDM, others on request
Installation orientation:	horizontal, vertical
Connections:	flange connection according to DIN 11864, others on request

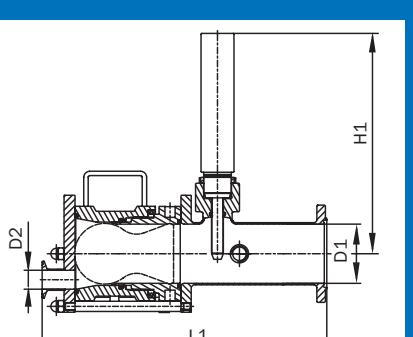
Automated Product Recovery System



for pipe DIN EN 10357, Series A

Plug-in Chamber with Stopper Series A

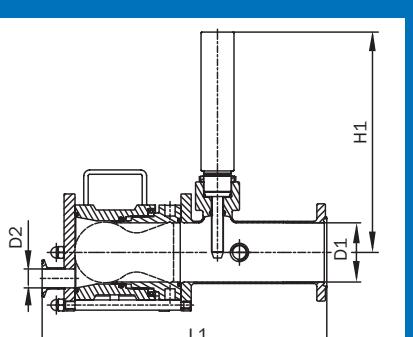
DN DIN	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
25	26	16	250	278	5.5	2049,40	6805 0005 002/1
40	38	16	280	281	7.0	2332,50	6805 0007 002/1
50	50	26	305	288	9.5	2646,00	6805 0008 002/1
65	66	26	340	290	14.0	2945,45	6805 0009 002/1
80	81	26	390	293	15.5	3322,90	6805 0010 002/1
100	100	26	460	295	21.0	3686,30	6805 0012 002/1



for pipe DIN EN 10357, Series D

Plug-in Chamber with Stopper Series D

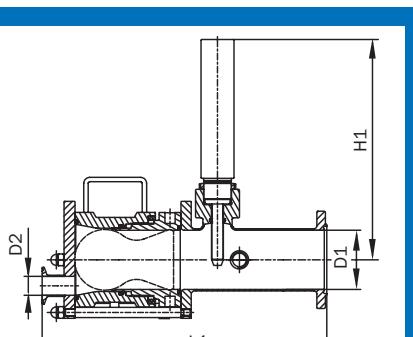
DN Inch	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
1"	22.1	16	245	276	5.4	2051,00	6805 0054 002/1
1 1/2"	34.8	16	275	280	7.0	2334,20	6805 0057 002/1
2"	47.5	26	305	287	9.5	2647,90	6805 0058 002/1
2 1/2"	60.2	26	330	288	14.0	2954,05	6805 0059 002/1
3"	72.9	26	380	289	15.5	3338,20	6805 0060 002/1
4"	97.38	26	460	294	21.0	3690,90	6805 0062 002/1



for pipe DIN EN 10357, Series C

Plug-in Chamber with Stopper Series C

DN ISO	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
33.7	29.7	16	260	280	6.5	2331,20	6805 0079 002/1
48.3	44.3	26	300	285	8.0	2648,50	6805 0081 002/1
60.3	56.3	26	325	292	12.0	2948,40	6805 0082 002/1
76.1	72.1	26	385	294	15.5	3325,75	6805 0083 002/1
88.9	84.3	26	400	295	18.0	3682,90	6805 0084 002/1
114.3	109.7	26	420	300	22.5	4055,00	6805 0085 002/1

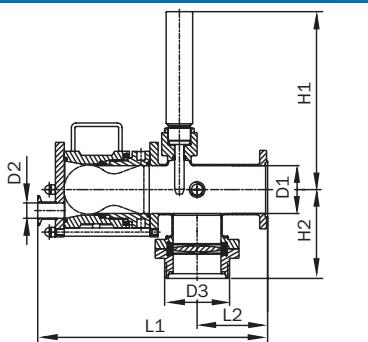


for pipe DIN EN 10357, Series D

Plug-in Chamber with Stopper Series D

DN SMS	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
25	22.5	16	243	276	5.5	2061,00	6805 0091 002/1
38	35.5	16	274	280	7.0	2334,20	6805 0092 002/1
51	48.5	26	303	287	9.5	2647,90	6805 0093 002/1
63.5	60.5	26	328	288	14.0	2956,00	6805 0094 002/1
76.1	72.9	26	378	289	15.5	3340,80	6805 0095 002/1

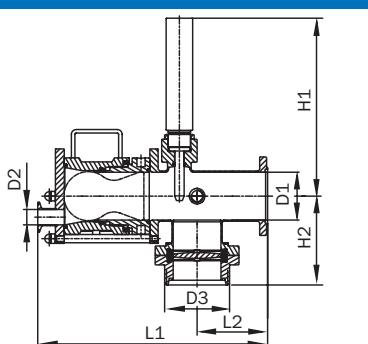
Automated Product Recovery System



for pipe DIN EN 10357, Series A

Plug-in Chamber with Stopper and Butterfly Valve Series A

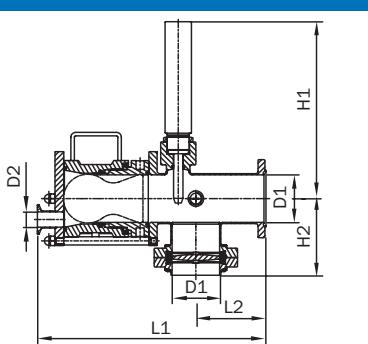
DN DIN	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
25	26	16	Rd 52 x 1/6"	250	75	278	68	9.5	2465,22	6855 0005 002/1
40	38	16	Rd 65 x 1/6"	280	85	281	83	11.0	2792,22	6855 0007 002/1
50	50	26	Rd 78 x 1/6"	305	90	288	91	14.0	3142,40	6855 0008 002/1
65	66	26	Rd 95 x 1/6"	340	100	290	126	19.0	3497,80	6855 0009 002/1
80	81	26	Rd 110 x 1/4"	390	120	293	149	22.0	3985,25	6855 0010 002/1
100	100	26	Rd 130 x 1/4"	460	155	295	165	28.5	4497,95	6855 0012 002/1



for pipe DIN EN 10357, Series D

Plug-in Chamber with Stopper and Butterfly Valve Series D

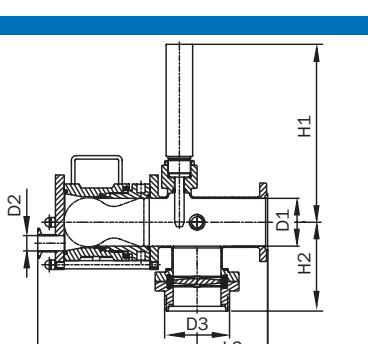
DN Inch	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
1"	22.1	16	Rd 52 x 1/6"	245	70	276	66	9.5	2466,82	6855 0054 002/1
1 1/2"	34.8	16	Rd 65 x 1/6"	275	85	280	82	11.0	2793,92	6855 0057 002/1
2"	47.5	26	Rd 78 x 1/6"	305	90	287	94	13.5	3144,30	6855 0058 002/1
2 1/2"	60.2	26	Rd 95 x 1/6"	335	105	288	123	19.0	3506,40	6855 0059 002/1
3"	72.9	26	Rd 104 x 1/6"	380	115	289	146	22.0	4005,55	6855 0060 002/1
4"	97.36	26	Rd 130 x 1/4"	460	155	294	164	28.5	4502,67	6855 0062 002/1



for pipe DIN EN 10357, Series C

Plug-in Chamber with Stopper and Butterfly Valve Series C

DN ISO	D1	D2	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
								Price/EUR	Article No.
33.7	29.7	16	260	70	280	70	10.0	2774,22	6855 0079 002/1
48.3	44.3	26	300	75	285	86	12.0	3157,40	6855 0081 002/1
60.3	56.3	26	325	85	292	95	16.0	3486,80	6855 0082 002/1
76.1	72.1	26	385	95	294	129	20.0	3947,25	6855 0083 002/1
88.9	84.3	26	400	120	295	150	24.5	4436,65	6855 0084 002/1
114.3	109.7	26	405	125	300	170	30.0	4556,95	6855 0085 002/1

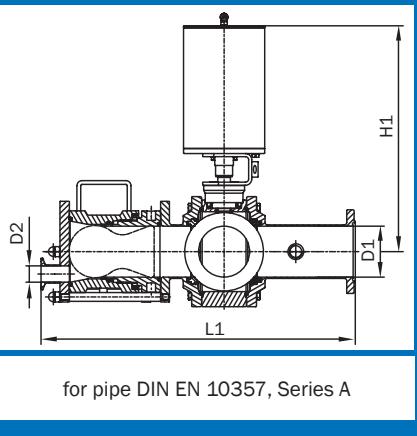


for pipe DIN EN 10357, Series D

Plug-in Chamber with Stopper and Butterfly Valve Series D

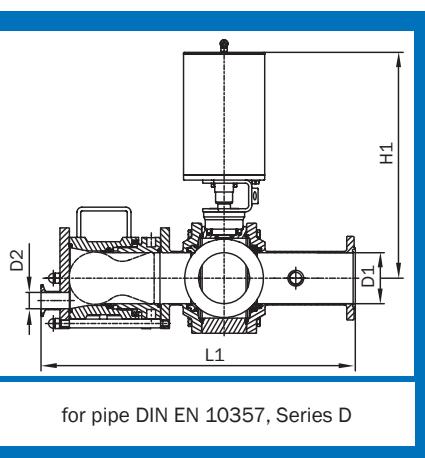
DN SMS	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
25	22.5	16	Rd 40 x 1/6"	245	70	276	66	9.5	2468,10	6855 0091 002/1
38	35.5	16	Rd 60 x 1/6"	275	85	280	82	11.0	2795,65	6855 0092 002/1
51	48.5	26	Rd 70 x 1/6"	305	90	287	94	13.5	3147,58	6855 0093 002/1
63.5	60.5	26	Rd 85 x 1/6"	330	105	288	123	18.5	3503,38	6855 0094 002/1
76.1	72.9	26	Rd 98 x 1/6"	380	115	289	146	22.0	4003,25	6855 0095 002/1

Automated Product Recovery System



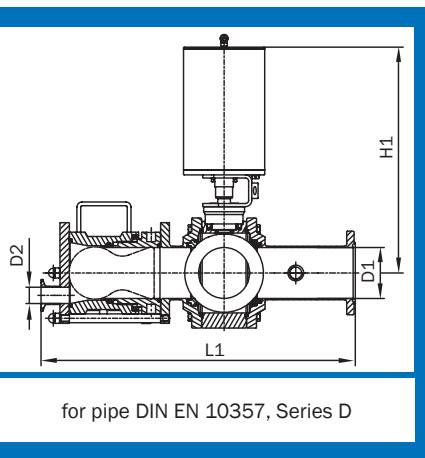
Plug-in Chamber with Stopper and Butterfly Valve Series A

DN DIN	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
40	38	16	330	263	13.0	2591,50	6850 0007 002/1
50	50	26	365	271	18.0	2940,00	6850 0008 002/1
65	66	26	420	281	26.0	3330,45	6850 0009 002/1
80	81	26	500	359	38.0	4057,90	6850 0010 002/1
100	100	26	610	377	55.0	4806,30	6850 0012 002/1



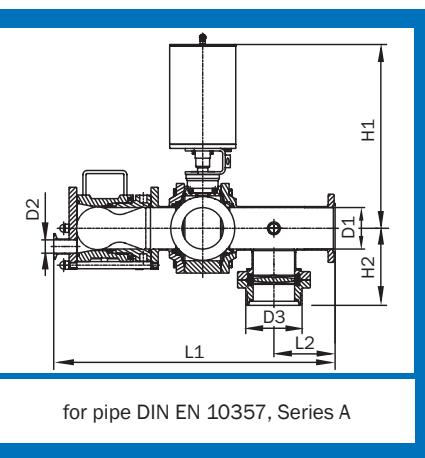
Plug-in Chamber with Ball Valve Series D

DN Inch	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
1 1/2"	34.8	16	325	266	11.5	2593,20	6850 0057 002/1
2"	47.5	26	365	268	18.0	2941,90	6850 0058 002/1
2 1/2"	60.2	26	415	284	26.0	3339,05	6850 0059 002/1
3"	72.9	26	510	359	37.5	4073,20	6850 0060 002/1
4"	37.38	26	605	377	55.0	4810,90	6850 0062 002/1



Plug-in Chamber with Ball Valve Series D

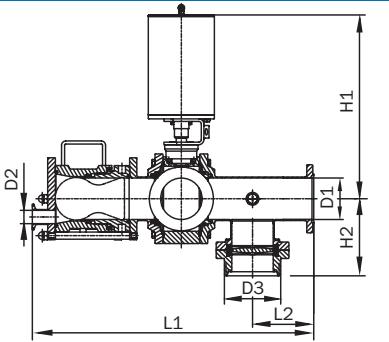
DN SMS	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM	
						Price/EUR	Article No.
38	35.5	16	325	263	11.5	2593,20	6850 0092 002/1
51	48.5	26	365	268	18.0	2941,90	6850 0093 002/1
63.5	60.5	26	415	284	25.5	3339,00	6850 0093 002/1
76.1	72.9	26	510	359	37.5	4075,80	6850 0094 002/1



Plug-in Chamber with Ball Valve and Butterfly Valve Series A

DN DIN	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
40	38	16	Rd 65 x 1/6"	380	85	263	83	16.5	3051,22	6860 0007 002/1
50	50	26	Rd 78 x 1/6"	420	90	271	91	22.5	3436,40	6860 0008 002/1
65	66	26	Rd 95 x 1/6"	470	100	284	126	30.5	3882,80	6860 0009 002/1
80	81	26	Rd 110 x 1/4"	550	120	359	149	44.5	4720,25	6860 0010 002/1
100	100	26	Rd 130 x 1/4"	660	155	377	165	62.0	5617,50	6860 0012 002/1

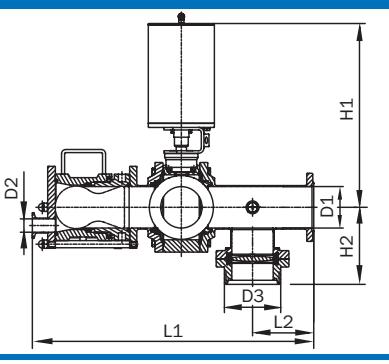
Automated Product Recovery System



for pipe DIN EN 10357, Series D

Plug-in Chamber with Ball Valve and Butterfly Valve Series D

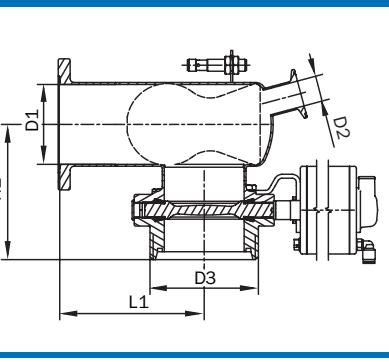
DN Inch	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
1 1/2"	34.8	16	Rd 65 x 1/6"	385	85	266	82	16.5	3052,92	6860 0057 002/1
2"	47.5	26	Rd 78 x 1/6"	425	90	268	94	22.0	3438,20	6860 0058 002/1
2 1/2"	60.2	26	Rd 95 x 1/6"	475	105	284	123	30.0	3891,40	6860 0059 002/1
3"	72.9	26	Rd 104 x 1/6"	570	115	359	146	42.5	4740,55	6860 0060 002/1
4"	97.36	26	Rd 130 x 1/4"	675	155	377	164	62.0	5622,55	6860 0062 002/1



for pipe DIN EN 10357, Series D

Plug-in Chamber with Ball Valve and Butterfly Valve Series D

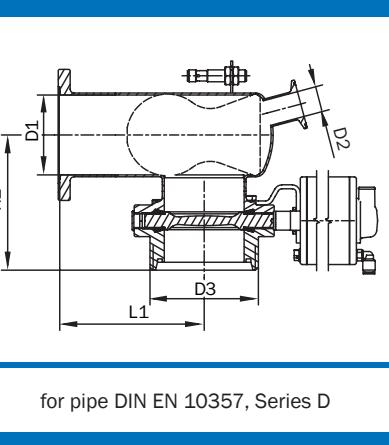
DN SMS	D1	D2	D3	L1	L2	H1	H2	Weight [kg]	1.4404 (316L)/EPDM	
									Price/EUR	Article No.
38	35.5	16	Rd 60 x 1/6"	415	85	263	82	16.0	3054,65	6860 0092 002/1
51	48.5	26	Rd 70 x 1/6"	425	90	268	94	22.0	3441,58	6860 0093 002/1
63.5	60.5	26	Rd 85 x 1/6"	470	105	284	123	30.0	3888,38	6860 0094 002/1
76.1	72.9	26	Rd 98 x 1/6"	565	115	359	146	42.5	4738,25	6860 0095 002/1



for pipe DIN EN 10357, Series A

End Chamber Series A

DN DIN	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
25	26	16	Rd 52 x 1/6"	85	90	5.5	608,11	6809 0005 002/1
40	38	16	Rd 65 x 1/6"	100	105	5.5	639,75	6809 0007 002/1
50	50	26	Rd 78 x 1/6"	105	115	6.5	681,70	6809 0008 002/1
65	66	26	Rd 95 x 1/6"	115	135	7.5	768,28	6809 0009 002/1
80	81	26	Rd 110 x 1/4"	140	150	10.0	878,00	6809 0010 002/1
100	100	26	Rd 130 x 1/4"	155	160	12.5	963,87	6809 0012 002/1

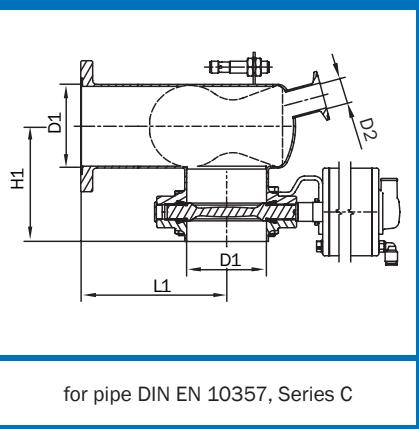


for pipe DIN EN 10357, Series D

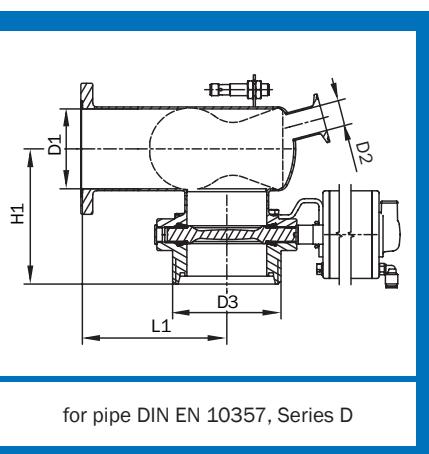
End Chamber Series D

DN Inch	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
1"	22.1	16	Rd 52 x 1/6"	80	100	5.5	611,60	6809 0054 002/1
1 1/2"	34.8	16	Rd 65 x 1/6"	95	110	5.5	641,85	6809 0057 002/1
2"	47.5	26	Rd 78 x 1/6"	105	115	6.0	683,70	6809 0057 002/1
2 1/2"	60.2	26	Rd 95 x 1/6"	110	130	7.0	778,28	6809 0059 002/1
3"	72.9	26	Rd 104 x 1/6"	135	140	9.5	895,30	6809 0060 002/1
4"	97.38	26	Rd 130 x 1/4"	155	155	12.5	967,87	6809 0062 002/1

Automated Product Recovery System



End Chamber Series C						Weight [kg]	1.4404 (316L)/EPDM	
DN ISO	D1	D2	H1	L1			Price/EUR	Article No.
33.7	29.7	16	85	100		5.5	610,40	6809 0079 002/1
48.3	44.3	16	100	115		6.5	645,35	6809 0081 002/1
60.3	56.3	16	110	120		7.5	687,80	6809 0082 002/1
76.1	72.1	26	135	140		9.5	772,28	6809 0083 002/1
88.9	84.3	26	145	150		10.5	890,70	6809 0084 002/1
114.3	109.7	26	150	160		13.5	1052,95	6809 0085 002/1



End Chamber Series D							Weight [kg]	1.4404 (316L)/EPDM	
DN SMS	D1	D2	D3	H1	L1			Price/EUR	Article No.
25	22.5	16	Rd 40 x 1/6"	80	100		5.5	611,60	6809 0091 002/1
38	35.5	16	Rd 60 x 1/6"	95	110		5.5	641,85	6809 0092 002/1
51	48.5	26	Rd 70 x 1/6"	105	115		6.0	683,70	6809 0093 002/1
63.5	60.5	26	Rd 85 x 1/6"	110	130		7.0	778,28	6809 0094 002/1
76.1	72.9	26	Rd 98 x 1/6"	135	140		9.5	895,30	6809 0095 002/1

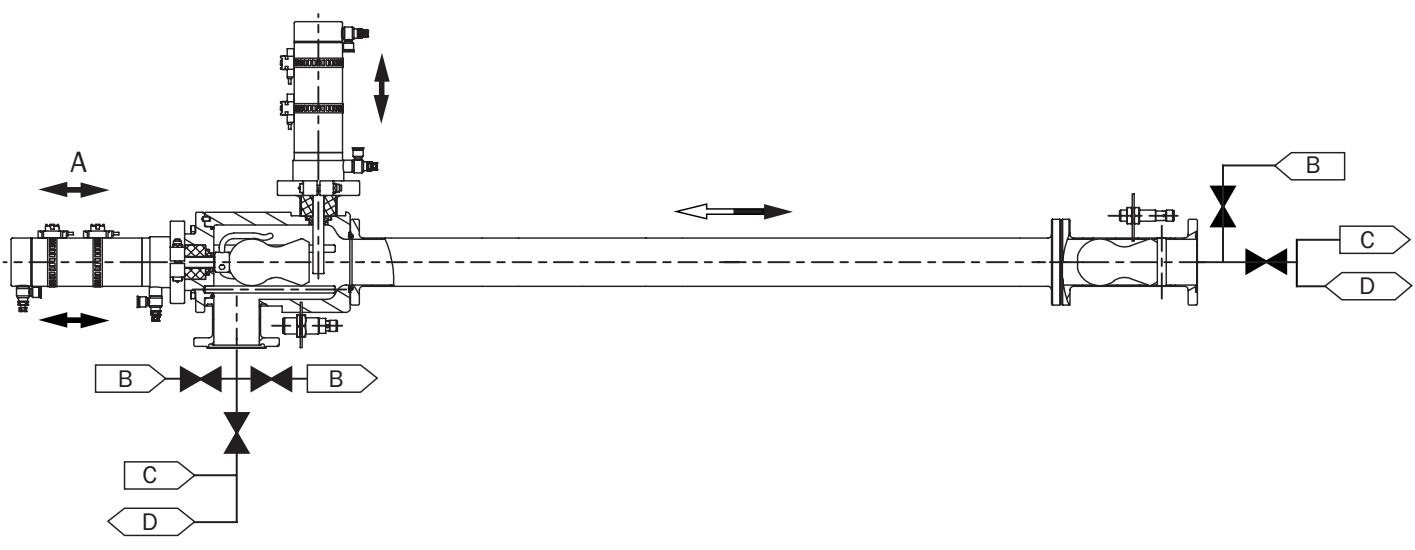
Fully Automated Product Recovery System



Properties

Components:	hygienic inline station, receiving chamber
Features:	safe, automatic system for pushing out product hygienic design for simple cleaning capability integrated pig lock, integrated pig cleaning
Actuation:	fully automatic, shuttle operation
Accessories:	supply fittings, drive controller, load removal cyclone, tangent pig, lip pig, sensors (not included in scope of delivery)

Flow Chart



A Pig

B Drive medium

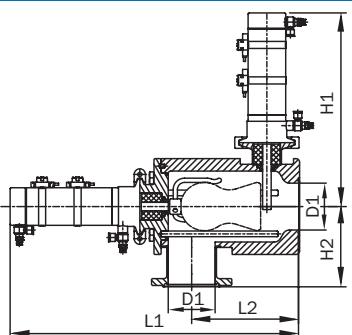
C Product

D Cleaning/CIP

Technical Parameters

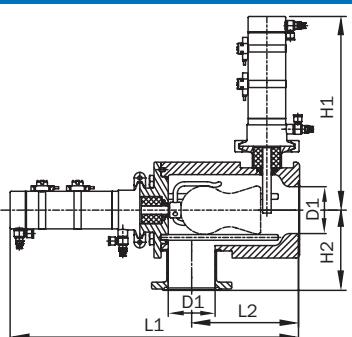
Materials:	1.4404 (316L) (contact with product), 1.4301 (304)
Pressure stage:	PN10, others on request
Seals:	EPDM, others on request
Installation orientation:	horizontal, vertical
Connections:	flange connection according to DIN 11864, others on request

Fully Automated Product Recovery System



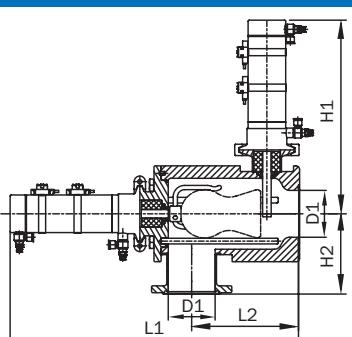
for pipe DIN EN 10357, Series A

Hygienic Inline Station Series A							1.4404 (316L)/EPDM	
DN DIN	D1	H1	H2	L1	L2	Weight [kg]	Price/EUR	Article No.
25	26	130	78	210	105	5.0	2837,30	6836 0005 002/1
40	38	258	88	361	120	10.5	3048,70	6836 0007 002/1
50	50	264	95	371	124	12.0	3283,10	6836 0008 002/1
65	66	273	113	406	151	17.5	3641,50	6836 0009 002/1
80	81	279	124	418	155	22.0	4375,50	6836 0010 002/1
100	100	293	142	456	184	38.5	4896,25	6836 0012 002/1



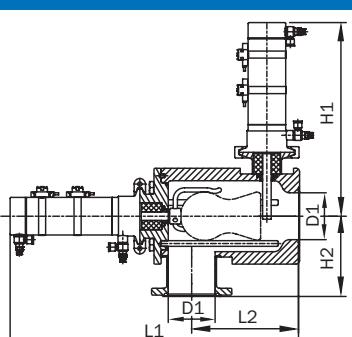
for pipe DIN EN 10357, Series D

Hygienic Inline Station Series D							1.4404 (316L)/EPDM	
DN Inch	D1	H1	H2	L1	L2	Weight [kg]	Price/EUR	Article No.
1"	22.1	130	78	210	86	5.0	2841,30	6836 0054 002/1
1 1/2"	34.8	258	88	361	121	10.5	3052,70	6836 0057 002/1
2"	47.5	264	95	371	125	12.0	3286,10	6836 0058 002/1
2 1/2"	60.2	273	113	406	153	18.0	3650,10	6836 0059 002/1
3"	72.9	279	122	418	159	23.0	4391,10	6836 0060 002/1
4"	97.38	293	142	456	185	39.0	4889,85	6836 0062 002/1



for pipe DIN EN 10357, Series C

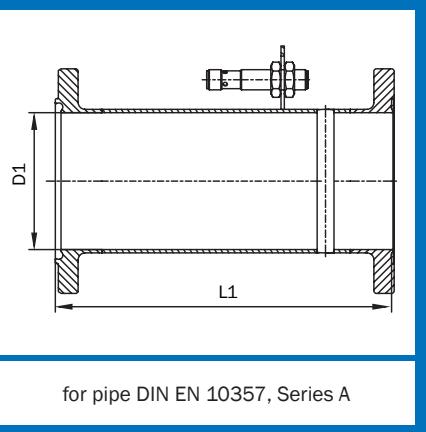
Hygienic Inline Station Series C							1.4404 (316L)/EPDM	
DN ISO	D1	H1	H2	L1	L2	Weight [kg]	Price/EUR	Article No.
33.7	29.7	136	85	220	91	7.0	3082,80	6836 0079 002/1
48.3	44.3	264	95	371	126	12.5	3294,20	6836 0081 002/1
60.3	56.3	273	113	396	145	18.0	3644,90	6836 0082 002/1
76.1	72.1	279	122	416	157	22.0	4379,25	6836 0083 002/1
88.9	84.3	293	142	444	179	37.5	4913,55	6836 0084 002/1
114.3	109.7	306	155	485	191	42.5	5336,65	6836 0085 002/1



for pipe DIN EN 10357, Series D

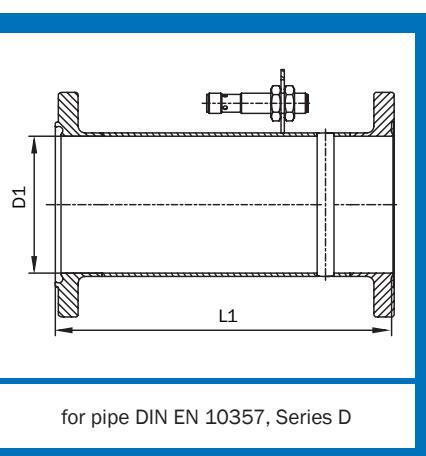
Hygienic Inline Station Series D							1.4404 (316L)/EPDM	
DN SMS	D1	H1	H2	L1	L2	Weight [kg]	Price/EUR	Article No.
25	22.5	130	78	210	86	5.0	2841,30	6836 0091 002/1
38	35.5	258	88	361	121	10.5	3052,70	6836 0092 002/1
51	48.5	264	95	371	124	12.0	3286,10	6836 0093 002/1
63.5	60.5	273	113	406	153	18.0	3650,10	6836 0094 002/1
76.1	72.9	279	122	418	159	22.5	4391,10	6836 0095 002/1

Fully Automated Product Recovery System



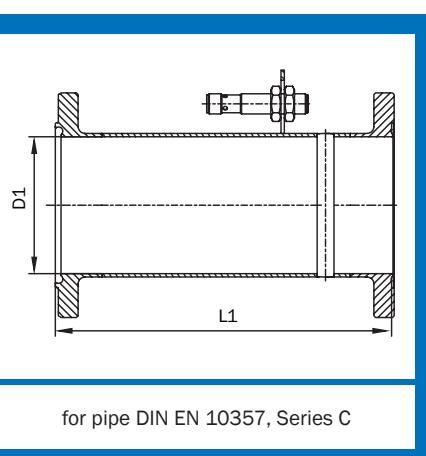
Receiving Chamber Series A

DN DIN	D1	L1	Weight [kg]	1.4404 (316L)/EPDM	
				Price/EUR	Article No.
25	26	125	1.0	326,61	6833 0005 002
40	38	135	1.0	338,11	6833 0007 002
50	50	150	1.5	352,79	6833 0008 002
65	66	175	1.5	392,90	6833 0009 002
80	81	200	2.0	495,76	6833 0010 002
100	100	220	3.5	548,64	6833 0012 002



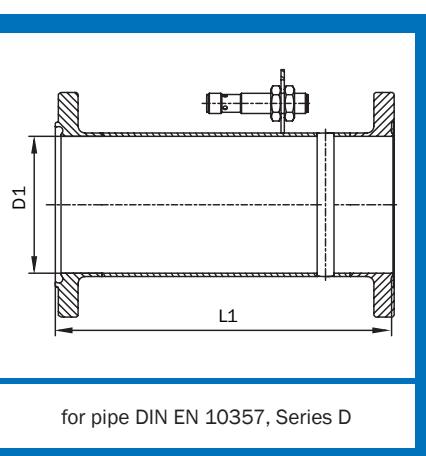
Receiving Chamber Series D

DN Inch	D1	L1	Weight [kg]	1.4404 (316L)/EPDM	
				Price/EUR	Article No.
1"	22.1	120	1.0	330,41	6833 0054 002
1 1/2"	34.8	125	1.0	341,91	6833 0057 002
2"	47.5	130	1.0	356,69	6833 0058 002
2 1/2"	60.2	150	1.5	408,60	6833 0059 002
3"	72.9	170	2.0	528,36	6833 0060 002
4"	97.38	210	3.5	556,34	6833 0062 002



Receiving Chamber Series C

DN ISO	D1	L1	Weight [kg]	1.4404 (316L)/EPDM	
				Price/EUR	Article No.
33.7	29.7	115	1.0	333,46	6833 0079 002
48.3	44.3	125	1.0	344,96	6833 0081 002
60.3	56.3	140	1.5	378,59	6833 0082 002
76.1	72.1	170	1.5	425,25	6833 0083 002
88.9	84.3	185	2.5	522,86	6833 0084 002
114.3	109.7	195	3.5	622,03	6833 0085 002



Reception Chamber Series D

DN SMS	D1	L1	Weight [kg]	1.4404 (316L)/EPDM	
				Price/EUR	Article No.
25	22.5	115	1.0	330,45	6807 0091 002
38	35.5	125	1.0	341,95	6833 0092 002
51	48.5	125	1.5	356,74	6833 0093 002
63.5	60.5	145	1.5	408,67	6833 0094 002
76.1	72.9	165	2.0	528,42	6833 0095 002

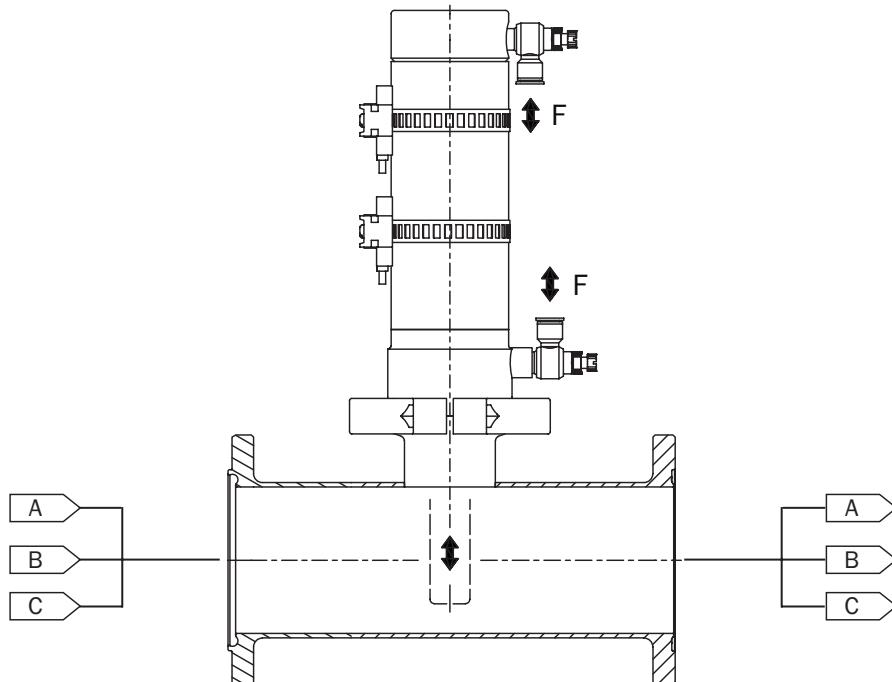
Notes

Pig Stopper

Properties

- Function:** blocking the pig
Features: stopping and releasing the pig
hygienic
Actuation: pneumatic air/air
Accessories: sensors (not included in the scope of delivery)

Technical Description



A Pig

B Drive medium

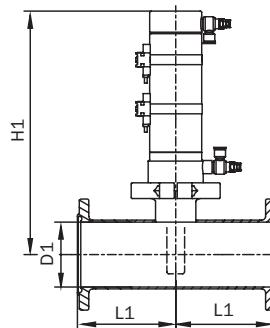
C Product

F Compressed air

Technical Parameters

- Materials:** housing: 1.4404 (316L) (contact with product), 1.4301 (304)
Pressure stage: PN 10
Seals: EPDM, others on request
Installation orientation: horizontal with pneumatic actuation upwards preferred
Connections: flange connection in accordance with DIN 11864

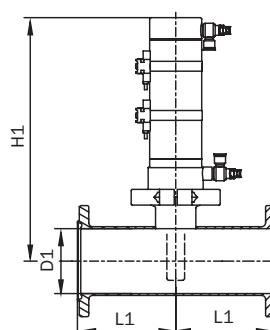
Pig Stopper



for pipe DIN EN 10357, Series A

Pig Stopper Series A

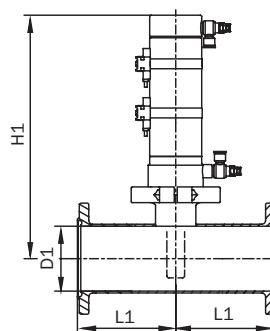
DN DIN	D1	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
					Price/EUR	Article No.
25	26	230	90	1.15	560,30	6819 0005 002/1
40	38	235	95	2.0	587,90	6819 0007 002/1
50	50	240	95	2.5	608,40	6819 0008 002/1
65	66	250	100	3.5	653,60	6819 0009 002/1
80	81	260	105	5.0	699,85	6819 0010 002/1
100	100	265	105	6.5	748,10	6819 0012 002/1



for pipe DIN EN 10357, Series D

Pig Stopper Series D

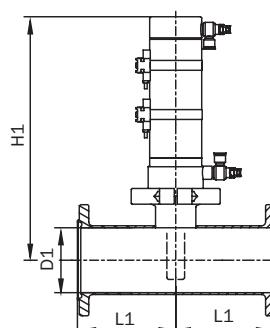
DN Inch	D1	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
					Price/EUR	Article No.
1"	22.1	230	90	1.5	565,40	6819 0054 002/1
1 1/2"	34.8	235	95	1.5	591,70	6819 0057 002/1
2"	47.5	240	95	2.0	612,30	6819 0058 002/1
2 1/2"	60.2	245	100	3.5	669,30	6819 0059 002/1
3"	72.9	255	105	4.5	732,45	6819 0060 002/1
4"	97.38	265	105	6.0	755,80	6819 0062 002/1



for pipe DIN EN 10357, Series C

Pig Stopper Series C

DN ISO	D1	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
					Price/EUR	Article No.
33.7	29.7	230	95	1.5	566,20	6819 0079 002/1
48.3	44.3	240	95	2.0	594,75	6819 0081 002/1
60.3	56.3	245	100	3.0	630,30	6819 0082 002/1
76.1	72.1	255	105	4.5	686,30	6819 0083 002/1
88.9	84.3	260	105	5.5	726,95	6819 0084 002/1
114.3	109.7	265	110	6.5	777,60	6819 0085 002/1



for pipe DIN EN 10357, Series D

Pig Stopper Series D

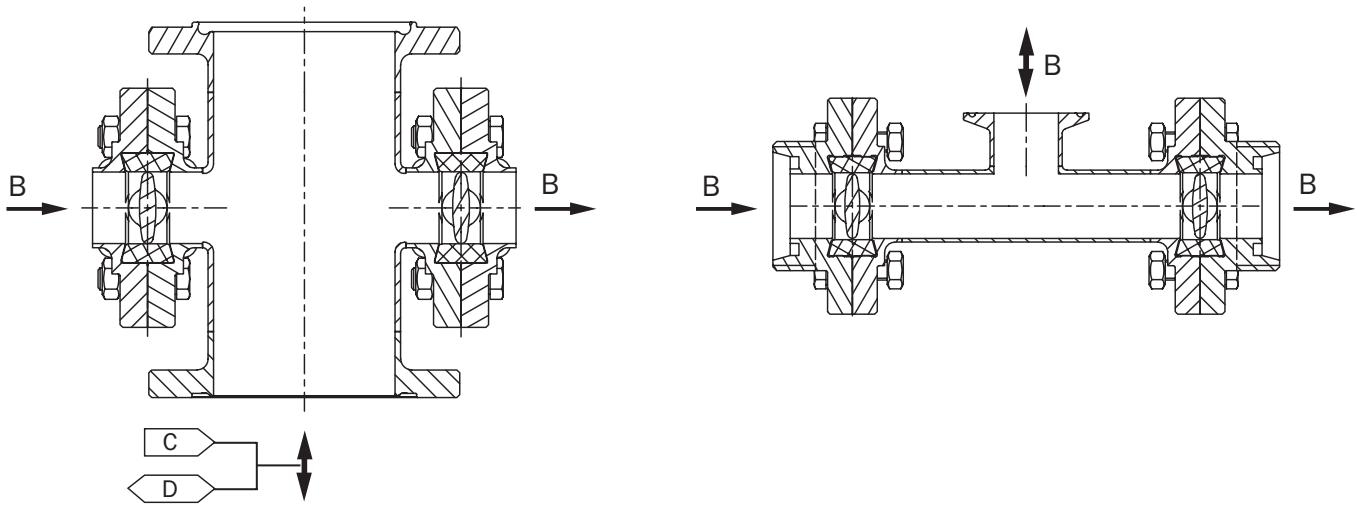
DN SMS	D1	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
					Price/EUR	Article No.
25	22.5	230	90	1.5	565,40	6819 0091 002/1
38	35.5	235	95	1.5	591,70	6819 0092 002/1
51	48.5	240	95	2.0	612,30	6819 0093 002/1
63.5	60.5	245	105	3.5	669,30	6819 0094 002/1
76.1	72.9	255	105	4.5	732,45	6819 0095 002/1

Supply Fittings

Properties

- Function:** supply and load removal with drive medium
Features: modular units for channeling drive medium in and out in different versions
hygienic
Actuation: manual or pneumatic
Accessories: sensors (not included in the scope of delivery)

Technical Description

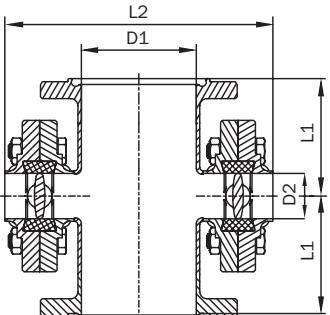


- B** Drive medium
C Product
D Cleaning/CIP

Technical Parameters

- Materials:** 1.4404 (316L) (contact with product), 1.4301 (304)
Pressure stage: PN 10
Seals: EPDM, others on request
Installation orientation: horizontal, vertical
Connections: flange connection according to DIN 11864
threaded connection according to DIN 11851
clamp connection according to DIN 32676
others on request

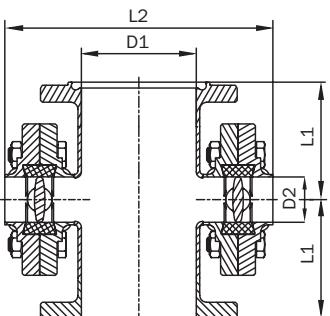
Supply Fittings



for pipe DIN EN 10357, Series A

Medium Supply Series A

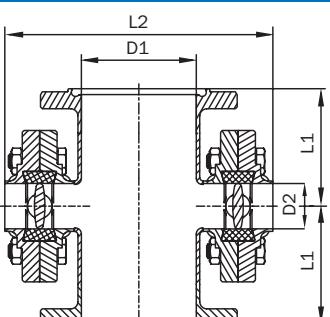
DN DIN	D1	D2	L1	L2	Weight [kg]	1.4404 (316L)/EPDM manually actuated		1.4404 (316L)/EPDM pneumatic	
						Price/EUR	Article No.	Price/EUR	Article No.
25	26	16	65	112	7.0	508,65	6834 1705 002/1	915,85	6834 0005 002/1
40	38	16	65	124	7.5	572,46	6834 1707 002/1	979,70	6834 0007 002/1
50	50	26	70	140	9.0	690,78	6834 1708 002/1	1096,56	6834 0008 002/1
65	66	26	70	154	10.0	741,43	6834 1709 002/1	1148,24	6834 0009 002/1
80	81	26	75	170	10.5	802,53	6834 1710 002/1	1190,27	6834 0010 002/1
100	100	26	85	191	11.0	841,45	6834 1712 002/1	1228,49	6834 0012 002/1



for pipe DIN EN 10357, Series D

Medium Supply Series D

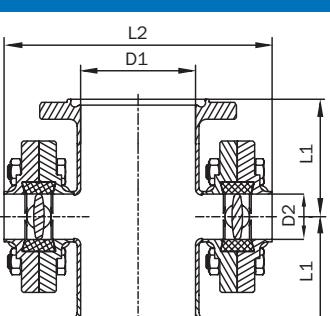
DN Inch	D1	D2	L1	L2	Weight [kg]	1.4404 (316L)/EPDM manually actuated		1.4404 (316L)/EPDM pneumatic	
						Price/EUR	Article No.	Price/EUR	Article No.
1"	22.1	16	65	111	7.0	513,71	6834 1754 002/1	920,95	6834 0054 002/1
1 1/2"	34.8	16	65	124	7.5	576,26	6834 1757 002/1	983,50	6834 0057 002/1
2"	47.5	26	70	137	9.0	692,44	6834 1758 002/1	1100,50	6834 0057 002/1
2 1/2"	60.2	26	70	149	10.0	756,70	6834 1759 002/1	1163,94	6834 0059 002/1
3"	72.9	26	75	162	10.0	835,83	6834 1760 002/1	1222,87	6834 0060 002/1
4"	97.38	26	85	187	10.5	918,45	6834 1762 002/1	1305,49	6834 0062 002/1



for pipe DIN EN 10357, Series C

Medium Supply Series C

DN ISO	D1	D2	L1	L2	Weight [kg]	1.4404 (316L)/EPDM manually actuated		1.4404 (316L)/EPDM pneumatic	
						Price/EUR	Article No.	Price/EUR	Article No.
33.7	29.7	16	65	116	7.0	514,51	6834 1779 002/1	921,75	6834 0079 002/1
48.3	44.3	16	70	134	8.5	579,31	6834 1781 002/1	986,55	6834 0081 002/1
60.3	56.3	26	70	146	10.0	710,90	6834 1782 002/1	1118,50	6834 0082 002/1
76.1	72.1	26	75	162	10.0	773,35	6834 1783 002/1	1180,59	6834 0083 002/1
88.9	84.3	26	80	175	10.5	830,33	6834 1784 002/1	1217,37	6834 0084 002/1
114.3	109.7	26	95	200	11.0	939,72	6834 1785 002/1	1326,76	6834 0085 002/1

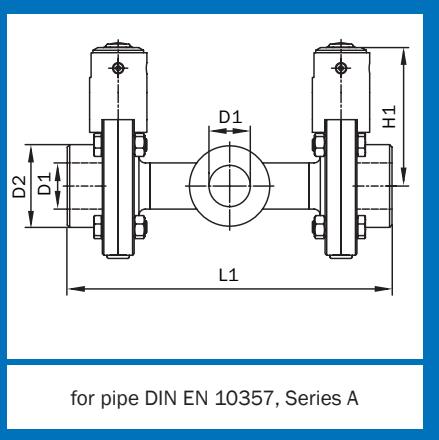


for pipe DIN EN 10357, Series D

Medium Supply Series D

DN SMS	D1	D2	L1	L2	Weight [kg]	1.4404 (316L)/EPDM manually actuated		1.4404 (316L)/EPDM pneumatic	
						Price/EUR	Article No.	Price/EUR	Article No.
25	22.5	16	65	111	7.0	513,86	6834 1791 002/1	921,10	6834 0091 002/1
38	35.5	16	65	124	7.5	576,86	6834 1792 002/1	984,15	6834 0092 002/1
51	48.5	26	70	137	9.0	692,84	6834 1793 002/1	1100,45	6834 0093 002/1
63.5	60.5	26	70	149	10.0	757,06	6834 1794 002/1	1164,30	6834 0094 002/1
76.1	72.9	26	75	162	10.0	836,26	6834 1795 002/1	1223,30	6834 0095 002/1

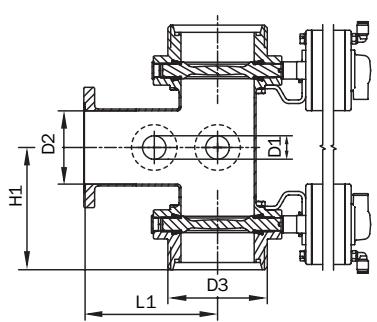
Supply Fittings



Connection Fitting Series A, manually actuated						
DN DIN	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM
15	16	Rd 34 x 1/8"	174	85	6.0	668,10 6817 1703 002/1
25	26	Rd 52 x 1/6"	184	90	6.5	708,85 6817 1705 002/1

Connection Fitting Series A, pneumatic						
DN DIN	D1	D2	L1	H1	Weight [kg]	1.4404 (316L)/EPDM
15	16	Rd 34 x 1/8"	174	225	9.0	870,65 6817 0003 002/1
25	26	Rd 52 x 1/6"	184	230	9.0	910,35 6817 0005 002/1

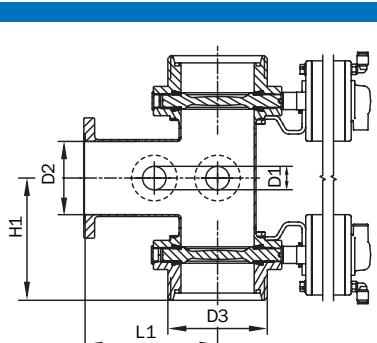
Filling Head



for pipe DIN EN 10357, Series A

Filling Head Series A

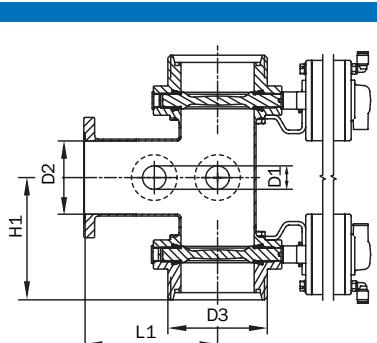
DN DIN	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
25	16	26	Rd 52 x 1/6"	90	90	10.0	917,00	6813 0005 002/1
40	16	38	Rd 65 x 1/6"	100	105	10.5	966,00	6813 0007 002/1
50	26	50	Rd 78 x 1/6"	105	115	11.5	1016,00	6813 0008 002/1
65	26	66	Rd 95 x 1/6"	120	135	13.0	1235,00	6813 0009 002/1
80	26	81	Rd 110 x 1/4"	135	150	18.0	1326,40	6813 0010 002/1
100	26	100	Rd 130 x 1/4"	150	160	22.0	1477,20	6813 0012 002/1



for pipe DIN EN 10357, Series D

Filling Head Series D

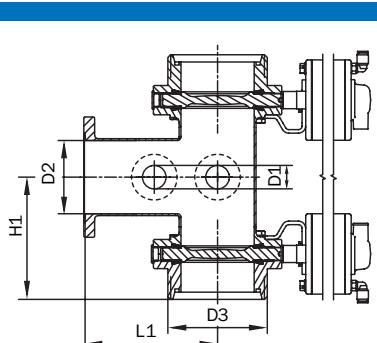
DN Inch	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
1"	16	22.1	Rd 52 x 1/6"	90	90	10.0	910,00	6813 0054 002/1
1 1/2"	16	34.8	Rd 65 x 1/6"	105	110	10.5	961,80	6813 0057 002/1
2"	26	47.5	Rd 78 x 1/6"	110	115	11.5	1012,00	6813 0057 002/1
2 1/2"	26	60.2	Rd 95 x 1/6"	120	135	13.0	1151,00	6813 0059 002/1
3"	26	72.9	Rd 104 x 1/4"	135	140	17.5	1291,80	6813 0060 002/1
4"	26	97.38	Rd 130 x 1/4"	150	160	22.0	1471,00	6813 0062 002/1



for pipe DIN EN 10357, Series C

Filling Head Series C

DN ISO	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
33.7	16	29.7	33.7 x 2	100	100	10.5	990,36	6813 0079 002/1
48.3	16	44.3	48.3 x 2	110	115	11.5	1043,28	6813 0081 002/1
60.3	26	56.3	60.3 x 2	120	120	12.5	1097,28	6813 0082 002/1
76.1	26	72.1	76.1 x 2	135	140	17.5	1323,80	6813 0083 002/1
88.9	26	84.3	88.9 x 2.3	145	150	19.5	1432,50	6813 0084 002/1
114.3	26	109.7	114.3 x 2.3	155	160	22.5	1595,35	6813 0085 002/1



for pipe DIN EN 10357, Series D

Filling Head Series D

DN SMS	D1	D2	D3	H1	L1	Weight [kg]	1.4404 (316L)/EPDM	
							Price/EUR	Article No.
25	16	22.5	Rd 40 x 1/6"	90	90	10.0	910,00	6813 0091 002/1
38	16	35.5	Rd 60 x 1/6"	105	110	10.5	961,80	6813 0092 002/1
51	26	48.5	Rd 70 x 1/6"	110	115	11.5	1012,00	6813 0093 002/1
63.5	26	60.5	Rd 85 x 1/6"	120	135	13.0	1151,00	6813 0094 002/1
76.1	26	72.9	Rd 98 x 1/6"	135	140	17.5	1291,80	6813 0095 002/1

Drive Controller

Properties

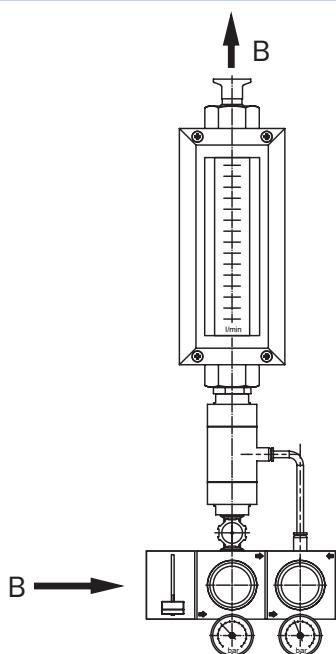
Function: pig speed control through volume flow control
Features: adjustment of pig speed over the entire pipeline length
independent of pressure conditions and the length of the pipeline
display of flow and pressure

Mode of operation: self-actuating mechanical, automatic, no electric or electronic support required

Accessories: lockable securing mechanism

Actuation: manual

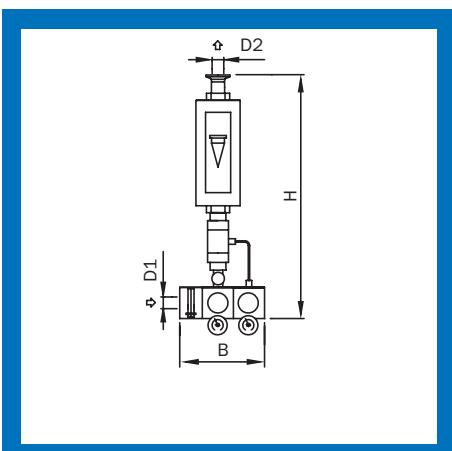
Technical Description



B Drive medium

Technical Parameters

Materials: housing: cast zinc, plastic, pinch valve: stainless steel/EPDM, flow indicator: stainless steel/glass (contact with medium)
Pressure stage: PN 10
Seals: EPDM
Installation orientation: horizontal
Connections: screw connection in accordance with ISO 228-1, clamp connection in accordance with DIN 32676



"Gas" Drive Controller

Control Range l/min	B	H	D1	D2	Weight [kg]	Price/EUR	Article No.
10 - 100	175	540	G 1/2	15	4.5	1046,20	6820 0032 06
20 - 180	175	540	G 1/2	25	4.5	1046,20	6820 0032 02
40 - 440	175	540	G 1/2	25	4.5	1104,55	6820 0032 00

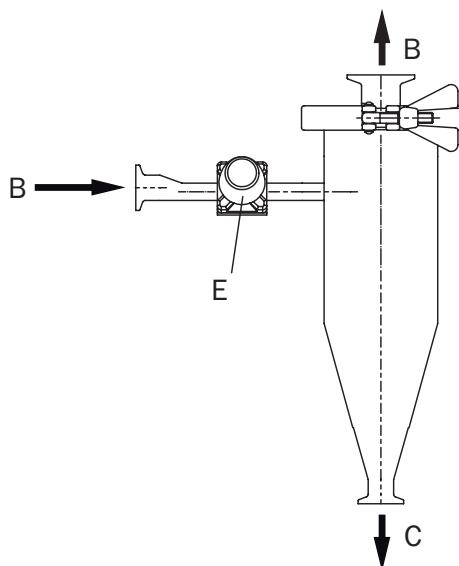
Cyclone

Properties

Function: pressure compensation when using gaseous drive media
Features: gradual, controlled pressure relief after the pigging process
non-pressurized dispersion of propellant gas
centrifugal separation of liquid components
integrated throttle valve for fine adjustment of the pigging process

Mode of operation: automatic
Actuation: manual

Technical Description



B Drive medium

C Product

E Throttle valve

Technical Parameters

Materials: 1.4404 (316L) (contact with product), 1.4301 (304)

Pressure stage: PN 10

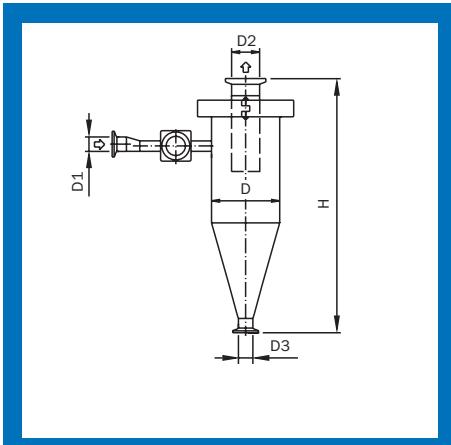
Seals: EPDM, others on request

Installation orientation: horizontal

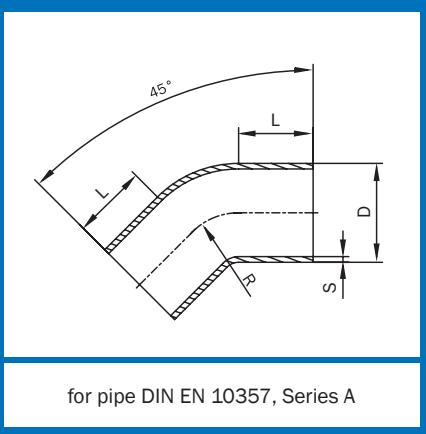
Connections: clamp connection according to DIN 32676

Cyclone

DN	D	D1	D2	D3	H	Weight [kg]	1.4404 (316L)/EPDM	Price/EUR	Article No.
25 - 65	85 x 2	15	25	15	321	3.0	903,40	6814 0010 002	
80 - 100	104 x 2	25	40	25	360	4.0	1143,45	6814 0012 002	



Pipeline Components



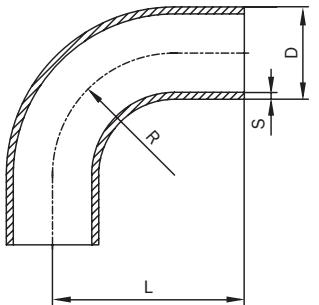
Piggable Bend 45° 1 - 1,5D (BA2/3) Series A						1.4404 (316L)	
DN DIN	D	L	R	S	Weight [kg]	Price/EUR	Article No.
25	29	40	50	1.5	0.12	*	6802 1205 002
40	41	40	60	1.5	0.19	*	6802 1207 002
50	53	40	70	1.5	0.26	*	6802 1208 002
65	70	40	80	2	0.49	*	6802 1209 002
80	85	55	90	2	0.76	*	6802 1210 002
100	104	55	100	2	0.97	*	6802 1212 002

Piggable Bend 45° 1 - 1,5D (BA2/3) Series D						1.4404 (316L)	
DN Inch	D	L	R	S	Weight [kg]	Price/EUR	Article No.
1"	25.4	40	38.1	1.65	0.11	*	6802 1254 002
1 1/2"	38.1	40	57.2	1.65	0.19	*	6802 1257 002
2"	50.8	40	76.2	1.65	0.29	*	6802 1258 002
2 1/2"	63.5	40	95.3	1.65	0.48	*	6802 1259 002
3"	76.2	55	114.3	1.65	0.68	*	6802 1260 002
4"	101.6	55	152.4	2.11	1.22	*	6802 1262 002

Piggable Bend 45° 1 - 1,5D (BA2/3) Series C						1.4404 (316L)	
DN ISO	D	L	R	S	Weight [kg]	Price/EUR	Article No.
33.7	33.7	40	38	2	0.18	*	6802 1279 002
48.3	48.3	40	57	2	0.28	*	6802 1281 002
60.3	60.3	40	76	2	0.45	*	6802 1282 002
76.1	76.1	55	95	2	0.69	*	6802 1283 002
88.9	88.9	55	114.5	2.3	1.25	*	6802 1284 002
114.3	114.3	55	152.5	2.3	2.18	*	6802 1285 002

Piggable Bend 45° 1 - 1,5D (BA2/3) Series D						1.4404 (316L)	
DN SMS	D	L	R	S	Weight [kg]	Price/EUR	Article No.
25	25	40	37.5	1.25	0.08	*	6802 1291 002
38	38	40	57	1.25	0.15	*	6802 1292 002
51	51	40	76.5	1.25	0.22	*	6802 1293 002
63	63.5	55	95.3	1.5	0.43	*	6802 1294 002
76	76.1	65	112.2	1.6	0.66	*	6802 1295 002

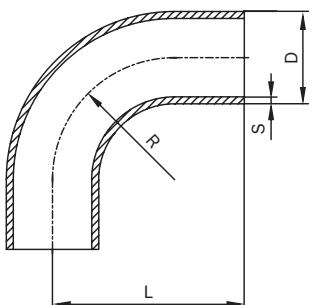
Pipeline Components



for pipe DIN EN 10357, Series A

Piggable Bend 90° 1 - 1,5D (BA2/3) Series A

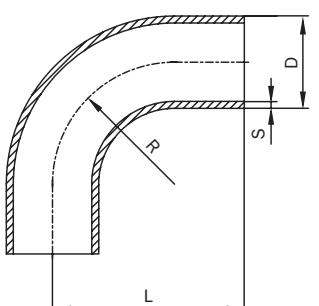
DN DIN	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
25	29	90	50	1.5	0.17	*	6802 1005 002
40	41	100	60	1.5	0.26	*	6802 1007 002
50	53	110	70	1.5	0.37	*	6802 1008 002
65	70	120	80	2	0.71	*	6802 1009 002
80	85	145	90	2	1.05	*	6802 1010 002
100	104	155	100	2	1.37	*	6802 1012 002



for pipe DIN EN 10357, Series D

Piggable Bend 90° 1 - 1,5D (BA2/3) Series D

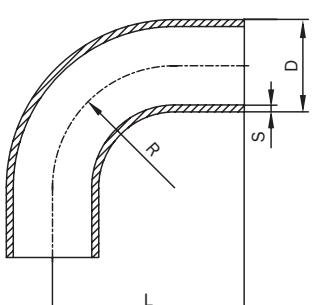
DN Inch	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
25.4	25.4	80	38.1	1.65	0.14	*	6802 1054 002
38.1	38.1	100	57.2	1.65	0.26	*	6802 1057 002
50.8	50.8	120	76.2	1.65	0.47	*	6802 1058 002
63.5	63.5	135	95.3	1.65	0.69	*	6802 1059 002
76.2	76.2	170	114.3	1.65	0.93	*	6802 1060 002
101.6	101.6	210	152.4	2.11	1.90	*	6802 1062 002



for pipe DIN EN 10357, Series C

Piggable Bend 90° 1 - 1,5D (BA2/3) Series C

DN ISO	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
33.7	33.7	80	38	2	0.26	*	6802 1079 002
48.3	48.3	100	57	2	0.41	*	6802 1081 002
60.3	60.3	115	76	2	0.61	*	6802 1082 002
76.1	76.1	150	95	2	0.86	*	6802 1083 002
88.9	88.9	170	114.5	2.3	1.46	*	6802 1084 002
114.3	114.3	210	152.5	2.3	2.27	*	6802 1085 002

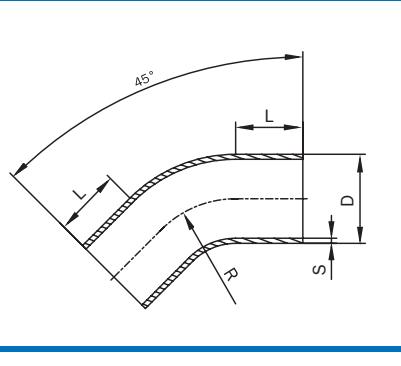


for pipe DIN EN 10357, Series D

Piggable Bend 90° 1 - 1,5D (BA2/3) Series D

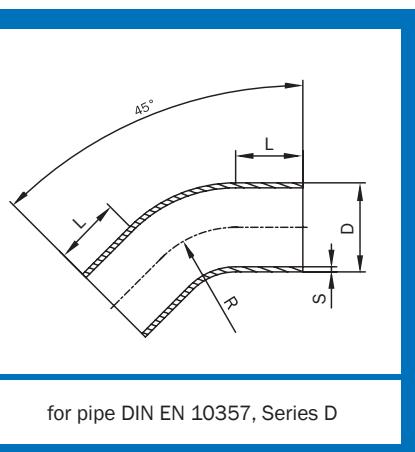
DN SMS	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
25	25	80	37.5	1.25	0.10	*	6802 1091 002
38	38	100	57	1.25	0.20	*	6802 1092 002
51	51	115	76.5	1.25	0.31	*	6802 1093 002
63	63.5	150	95.3	1.5	0.61	*	6802 1094 002
76	76.1	170	112.2	1.6	0.88	*	6802 1095 002

Pipeline Components



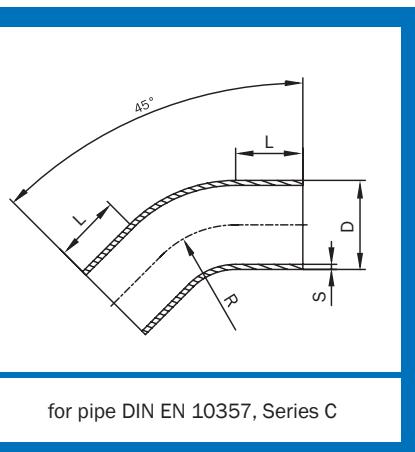
for pipe DIN EN 10357, Series A

Piggable Bend 45° 2,5D (BA5) Series A						1.4404 (316L)	
DN DIN	D	L	R	S	Weight [kg]	Price/EUR	Article No.
25	29	40	65	1.5	0.17	*	6802 1305 002
40	41	40	95	1.5	0.23	*	6802 1307 002
50	53	40	125	1.5	0.35	*	6802 1308 002
65	70	40	160	2	0.71	*	6802 1309 002
80	85	55	200	2	1.12	*	6802 1310 002
100	104	55	250	2	1.58	*	6802 1312 002



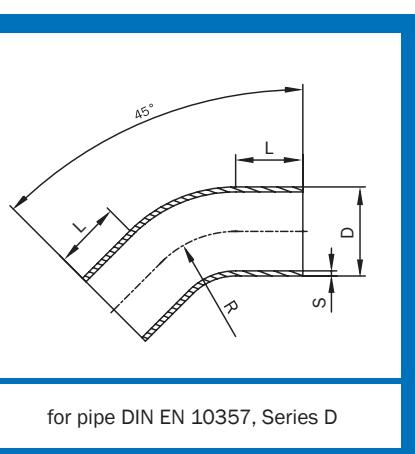
for pipe DIN EN 10357, Series D

Piggable Bend 45° 2,5D (BA5) Series D						1.4404 (316L)	
DN Inch	D	L	R	S	Weight [kg]	Price/EUR	Article No.
1"	25.4	40	52.5	1.65	0.12	*	6802 1354 002
1 1/2"	38.1	40	82.5	1.65	0.22	*	6802 1357 002
2"	50.8	40	115	1.65	0.39	*	6802 1358 002
2 1/2"	63.5	40	142.5	1.65	0.49	*	6802 1359 002
3"	76.2	55	175	1.65	0.77	*	6802 1360 002
4"	101.6	55	237.5	2.11	1.57	*	6802 1362 002



for pipe DIN EN 10357, Series C

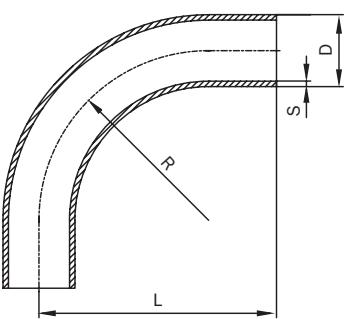
Piggable Bend 45° 2,5D (BA5) Series C						1.4404 (316L)	
DN ISO	D	L	R	S	Weight [kg]	Price/EUR	Article No.
33.7	33.7	40	72.5	2	0.24	*	6802 1379 002
48.3	48.3	40	110	2	0.46	*	6802 1381 002
60.3	60.3	40	135	2	0.61	*	6802 1382 002
76.1	76.1	55	175	2	0.93	*	6802 1383 002
88.9	88.9	55	205	2.3	1.41	*	6802 1384 002
114.3	114.3	55	270	2.3	2.29	*	6802 1385 002



for pipe DIN EN 10357, Series D

Piggable Bend 45° 2,5D (BA5) Series D						1.4404 (316L)	
DN SMS	D	L	R	S	Weight [kg]	Price/EUR	Article No.
25	25	40	75	1.25	0.10	*	6802 1391 002
38	38	40	115	1.25	0.20	*	6802 1392 002
51	51	40	150	1.25	0.31	*	6802 1393 002
63	63.5	55	185	1.5	0.53	*	6802 1394 002
76	76.1	65	215	1.6	0.84	*	6802 1395 002

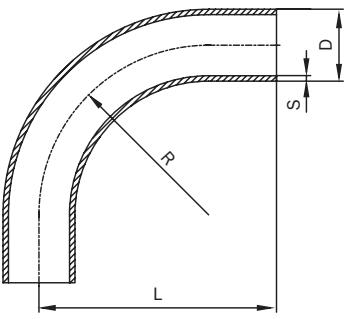
Pipeline Components



for pipe DIN EN 10357, Series A

Piggable Bend 90° 2,5D (BA5) Series A

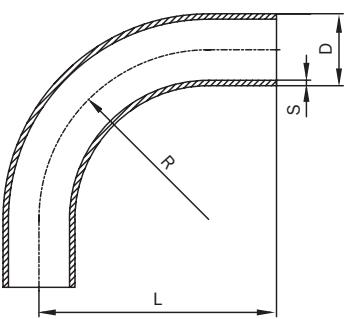
DN DIN	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
25	29	165	65	1.5	0.31	*	6802 1105 002
40	41	245	95	1.5	0.67	*	6802 1107 002
50	53	275	125	1.5	0.97	*	6802 1108 002
65	70	310	160	2	1.89	*	6802 1109 002
80	85	350	200	2	2.57	*	6802 1110 002
100	104	400	250	2	3.57	*	6802 1112 002



for pipe DIN EN 10357, Series D

Piggable Bend 90° 2,5D (BA5) Series D

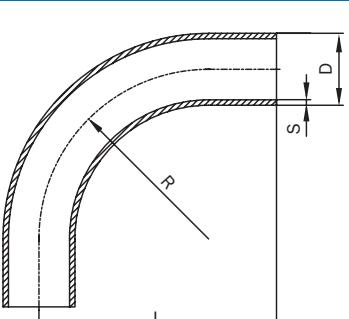
DN Inch	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
1"	25.4	175	52.5	1.65	0.32	*	6802 1154 002
1 1/2"	38.1	230	82.5	1.65	0.65	*	6802 1157 002
2"	50.8	265	115	1.65	0.57	*	6802 1158 002
2 1/2"	63.5	290	142.5	1.65	1.57	*	6802 1159 002
3"	76.2	325	175	1.65	1.78	*	6802 1160 002
4"	101.6	350	237.5	2.11	3.17	*	6802 1162 002



for pipe DIN EN 10357, Series C

Piggable Bend 90° 2,5D (BA5) Series C

DN ISO	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
33.7	33.7	172.5	72.5	2	0.50	*	6802 1179 002
48.3	48.3	220	110	2	0.92	*	6802 1181 002
60.3	60.3	245	135	2	1.27	*	6802 1182 002
76.1	76.1	295	175	2	1.93	*	6802 1183 002
88.9	88.9	355	205	2.3	3.13	*	6802 1184 002
114.3	114.3	400	270	2.3	4.45	*	6802 1185 002



for pipe DIN EN 10357, Series D

Piggable Bend 90° 2,5D (BA5) Series D

DN SMS	D	L	R	S	Weight [kg]	1.4404 (316L)	
						Price/EUR	Article No.
25	25	175	75	1.25	0.24	*	6802 1191 002
38	38	265	115	1.25	0.56	*	6802 1192 002
51	51	300	150	1.25	0.84	*	6802 1193 002
63	63.5	335	185	1.5	1.34	*	6802 1194 002
76	76.1	365	215	1.6	1.92	*	6802 1195 002

Pipeline Components

for pipe DIN EN 10357, Series A
x₁ - bar

Piggable T-piece, long, Series A							
DN DIN	D1	D2	L	L1	Weight [kg]	1.4404 (316L)	
25	26	29	100	50	0.14	Price/EUR Article No.	
40	38	41	120	60	0.24	*	6822 0005 002
50	50	53	140	70	0.36	*	6822 0007 002
65	66	70	160	80	0.69	*	6822 0008 002
80	81	85	180	90	0.93	*	6822 0010 002
100	100	104	200	100	1.23	*	6822 0012 002

for pipe DIN EN 10357, Series D
x₁ - bar

Piggable T-piece, long, Series D							
DN Inch	D1	D2	L	L1	Weight [kg]	1.4404 (316L)	
1"	22.1	25.4	108	54	0.15	Price/EUR Article No.	
1 1/2"	34.8	38.1	120.6	60.3	0.25	*	6822 0054 002
2"	47.5	50.8	146	73	0.40	*	6822 0058 002
2 1/2"	60.2	63.5	158.8	79.4	0.51	*	6822 0059 002
3"	72.9	76.2	171.4	85.7	0.65	*	6822 0060 002
4"	97.38	101.6	209.6	104.8	1.32	*	6822 0062 002

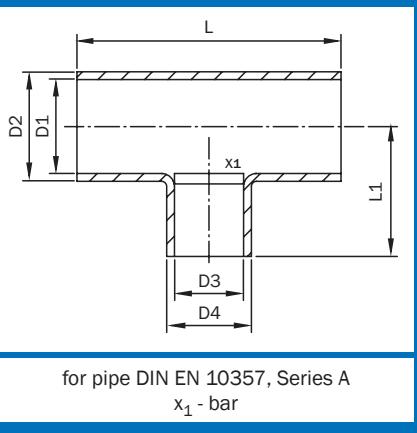
for pipe DIN EN 10357, Series C
x₁ - bar

Piggable T-piece, long, Series C							
DN ISO	D1	D2	L	L1	Weight [kg]	1.4404 (316L)	
33.7	29.7	33.7	120	50	0.26	Price/EUR Article No.	
48.3	44.3	48.3	130	60	0.40	*	6822 0079 002
60.3	56.3	60.3	180	70	0.70	*	6822 0081 002
78.1	72.2	76.2	220	80	1.07	*	6822 0082 002
88.9	84.3	88.9	260	90	1.70	*	6822 0083 002
114.3	109.7	114.3	320	100	2.69	*	6822 0084 002

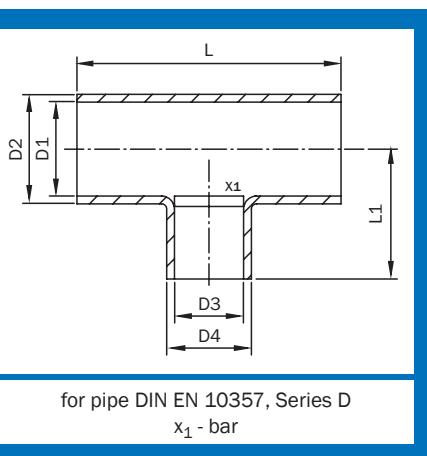
for pipe DIN EN 10357, Series D
x₁ - bar

Piggable T-piece, long, Series D							
DN SMS	D1	D2	L	L1	Weight [kg]	1.4404 (316L)	
25	22.6	25	110	55	0.11	Price/EUR Article No.	
38	35.6	38	140	70	0.22	*	6822 0091 002
51	48.6	51	164	82	0.33	*	6822 0092 002
63.5	60.3	63.5	210	105	0.69	*	6822 0093 002
76.1	72.9	76.1	220	110	0.87	*	6822 0094 002

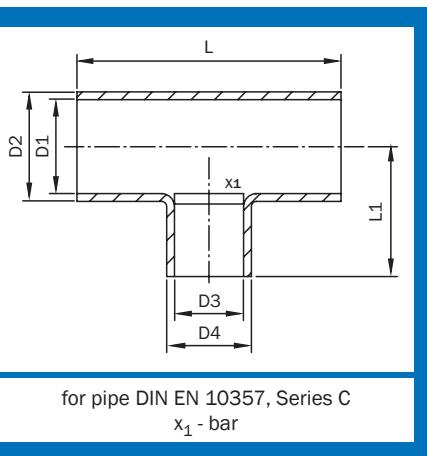
Pipeline Components



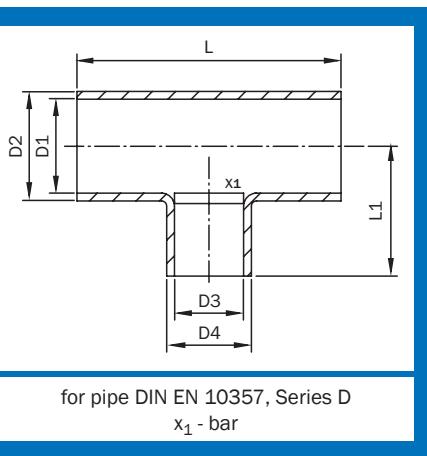
Piggable T-piece, long, reduced Series A								1.4404 (316L)	
DN DIN	D1	D2	D3	D4	L	L1	Weight [kg]	Price/EUR	Article No.
25	26	29	20	23	100	50	0.13	*	6824 0005 002
40	38	41	26	29	120	60	0.22	*	6824 0007 002
50	50	53	38	41	140	70	0.33	*	6824 0008 002
65	66	70	50	53	160	80	0.65	*	6824 0009 002
80	81	85	66	70	180	90	0.88	*	6824 0010 002
100	100	104	81	85	200	100	1.18	*	6824 0012 002



Piggable T-piece, long, reduced Series D								1.4404 (316L)	
DN Inch	D1	D2	D3	D4	L	L1	Weight [kg]	Price/EUR	Article No.
1"	22.1	25.4	15.75	19.05	108	54	0.14	*	6824 0054 002
1 1/2"	34.8	38.1	22.1	25.4	120.6	60.3	0.22	*	6824 0057 002
2"	47.5	50.8	34.8	38.1	146	73	0.36	*	6824 0058 002
2 1/2"	60.2	63.5	47.5	50.8	158.8	79.4	0.49	*	6824 0059 002
3"	72.9	76.2	60.2	63.5	171.4	85.7	0.63	*	6824 0060 002
4"	97.38	101.6	72.9	76.2	209.6	104.8	1.28	*	6824 0062 002

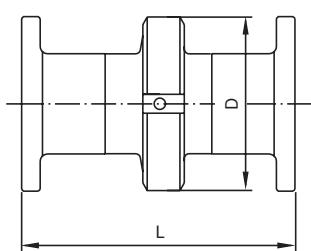


Piggable T-piece, long, reduced Series C								1.4404 (316L)	
DN ISO	D1	D2	D3	D4	L	L1	Weight [kg]	Price/EUR	Article No.
33.7	29.7	33.7	23.7	26.9	120	60	0.24	*	6824 0079 002
48.3	44.3	48.3	29.7	33.7	130	65	0.38	*	6824 0081 002
60.3	56.3	60.3	44.3	48.3	180	90	0.65	*	6824 0082 002
78.1	72.2	76.2	56.3	60.3	220	110	1.01	*	6824 0083 002
88.9	84.3	88.9	72.2	76.2	260	130	1.63	*	6824 0084 002
114.3	109.7	114.3	84.3	88.9	320	160	2.53	*	6824 0085 002



Piggable T-piece, long, reduced Series D								1.4404 (316L)	
DN SMS	D1	D2	D3	D4	L	L1	Weight [kg]	Price/EUR	Article No.
25	22.6	25	15.6	18	110	55	0.10	*	6824 0091 002
38	35.6	38	22.6	25	140	70	0.19	*	6824 0092 002
51	48.6	51	35.6	38	164	82	0.30	*	6824 0093 002
63.5	60.3	63.5	48.6	51	210	105	0.66	*	6824 0094 002
76.1	72.9	76.1	60.3	63.5	220	110	0.82	*	6824 0095 002

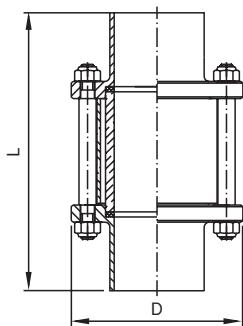
Pipeline Components



for pipe DIN EN 10357, Series A
Other variants on request.

Swivel Joint Series A

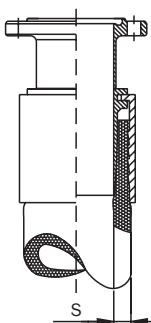
DN DIN	D	L	Weight [kg]	1.4404 (316L)/EPDM	
				Price/EUR	Article No.
25	63	124	0.95	224,07	6829 0105 002
40	78	142	1.25	249,96	6829 0107 002
50	92	146	1.65	291,89	6829 0108 002
65	112	172	2.50	360,64	6829 0109 002
80	127	190	3.60	431,55	6829 0110 002
100	148	204	5.30	499,05	6829 0112 002



for pipe DIN EN 10357, Series A
Other variants on request.

Inline Sight Glass Series A

DN DIN	D	L	Weight [kg]	1.4404 (316L)/EPDM/ borosilicate glass	
				Price/EUR	Article No.
25	70	148	0.82	100,60	6830 0105 002
40	90	162	1.25	125,50	6830 0107 002
50	100	162	1.50	138,85	6830 0108 002
65	118	177	1.99	167,20	6830 0109 002
80	130	185	2.60	189,90	6830 0110 002
100	162	219	3.12	353,30	6830 0112 002



for pipe DIN EN 10357, Series A
Other variants on request.

Hose Series A

DN DIN	V	Bending radius	Length according to requirements	Weight [kg]	1.4404 (316L)/Silicone	
					Price/EUR	
25	3	150	*	0.93	*	
40	3	265	*	2.14	*	
50	3	300	*	2.70	*	
65	3	390	*	3.38	*	
80	3	480	*	3.95	*	
100	3	600	*	5.67	*	

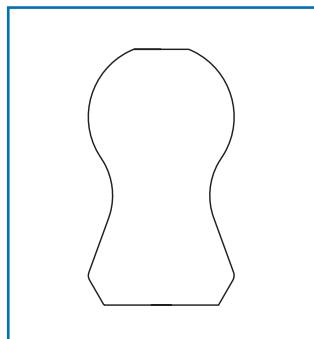
Notes

Pigs

Properties

AWH offers a variety of pigs, depending on the requirement.

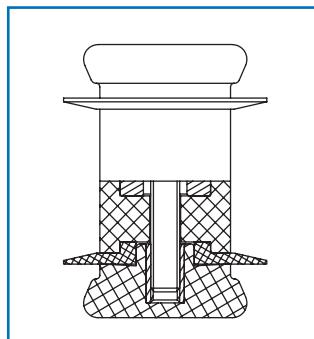
Tangent pig



Features: single-piece, hygienic full bodies made of low-wear elastomer
suitable for bends 1,5D (BA3) or larger
suitable for t-branches with guide
integrated permanent magnet for detection
conformance with RL EG1935 and FDA

Mode of operation: bidirectional (forwards and backwards)

Lip pig



Features: multi-part displacers made of resistant plastic
tough sealing lips made of low-wear elastomer
replaceable sealing lips
suitable for bends 2,5D (BA5) or larger
suitable for reduced t-branches with guide
integrated permanent magnet for detection
conformance with RL EG1935 and FDA

Mode of operation: bidirectional (forwards and backwards)

Technical Parameters

Tangent pig

Materials: silicone, others on request
Operation temperature: max. 100 °C

Lip pig

Materials: PVDF / silicone, others on request
Operation temperature: max. 100 °C

Color of Pig Elastomer (order instruction)

Please take the respective article number of the desired pig and replace 000 (white) with:

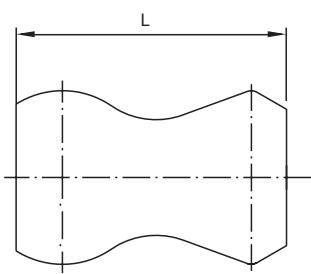
Blue: 100
Orange: 200
Red: 300
Yellow: 400
Green: 500

Example of tangent pig, short, Series A:

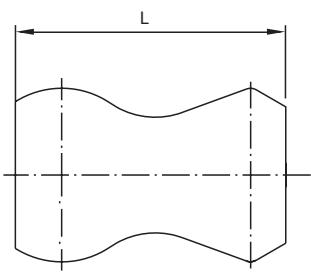
White: 6801 0505 000/0
Blue: 6801 0505 100/0
Orange: 6801 0505 200/0

*only for silicone, without difference in price

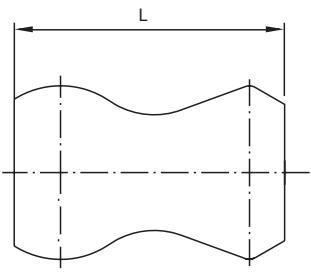
Pigs



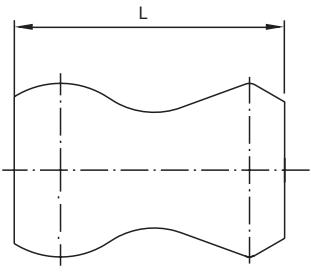
for pipe DIN EN 10357, Series A



for pipe DIN EN 10357, Series D



for pipe DIN EN 10357, Series C



for pipe DIN EN 10357, Series D

Tangent pig, short, Series A

DN DIN	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
25	29 x 1.5	45	0.02	111,00	6801 0505 000/0
40	41 x 1.5	61	0.07	127,00	6801 0507 000/0
50	53 x 1.5	76.5	0.15	174,00	6801 0508 000/0
65	70 x 2	95	0.31	216,00	6801 0509 000/0
80	85 x 2	109	0.50	304,00	6801 0510 000/0
100	104 x 2	145	0.96	437,00	6801 0512 000/0

Tangent pig, short, Series D

DN Inch	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
1"	25.4 x 1.65	41	0.02	103,00	6801 0554 000/0
1 1/2"	38.1 x 1.65	55	0.05	119,00	6801 0557 000/0
2"	50.8 x 1.65	73.25	0.13	169,00	6801 0558 000/0
2 1/2"	63.5 x 1.65	91	0.25	205,00	6801 0559 000/0
3"	76.2 x 1.65	102.5	0.40	285,00	6801 0560 000/0
4"	101.6 x 2.11	130.5	0.83	438,00	6801 0562 000/0

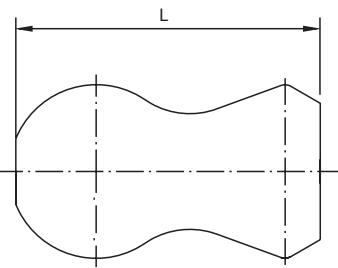
Tangent pig, short, Series C

DN ISO	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
33.7	33.7 x 2	52	0.03	105,00	6801 0579 000/0
48.3	48.3 x 2	71	0.11	165,00	6801 0581 000/0
60.3	60.3 x 2	83.5	0.20	185,00	6801 0582 000/0
78.1	76.1 x 2	107.5	0.39	264,00	6801 0583 000/0
88.9	88.9 x 2.3	115	0.56	350,00	6801 0584 000/0
114.3	114.3 x 2.3	147.5	1.26	439,00	6801 0585 000/0

Tangent Pig, short, Series D

DN SMS	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
25	25 x 1.25	42	0.02	110,00	6801 0591 000/0
38	38 x 1.25	55.5	0.06	123,00	6801 0592 000/0
51	51 x 1.25	73.5	0.14	172,00	6801 0593 000/0
63.5	63.5 x 1.5	91.3	0.25	215,00	6801 0594 000/0
76.1	76.1 x 1.6	102.5	0.40	295,00	6801 0595 000/0

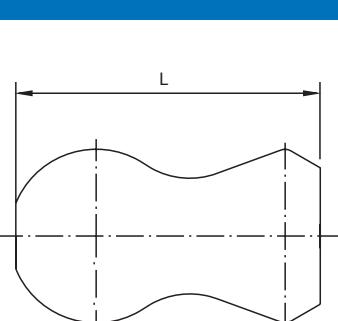
Pigs



for pipe DIN EN 10357, Series A

Tangent Pig, long, Series A

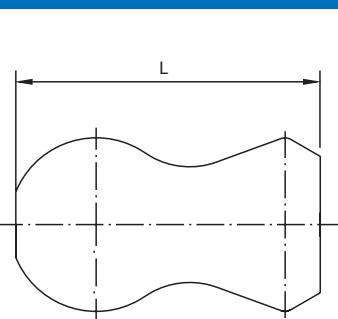
DN DIN	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
25	29 x 1.5	49.22	0.03	121,00	6801 0605 000/0
40	41 x 1.5	69.27	0.08	137,00	6801 0607 000/0
50	53 x 1.5	87.63	0.16	184,00	6801 0608 000/0
65	70 x 2	112.2	0.34	226,00	6801 0609 000/0
80	85 x 2	134.8	0.58	314,00	6801 0610 000/0
100	104 x 2	165.5	1.03	447,00	6801 0612 000/0



for pipe DIN EN 10357, Series D

Tangent Pig, long, Series D

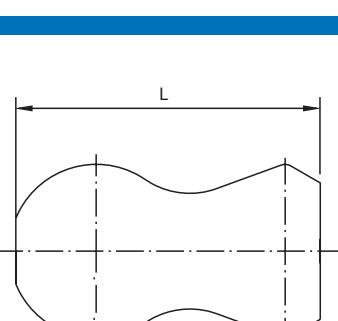
DN Inch	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
1"	25.4 x 1.65	43.05	0.02	113,00	6801 0654 000/0
1 1/2"	38.1 x 1.65	64.5	0.06	129,00	6801 0657 000/0
2"	50.8 x 1.65	84.8	0.15	179,00	6801 0658 000/0
2 1/2"	63.5 x 1.65	103.1	0.26	215,00	6801 0659 000/0
3"	76.2 x 1.65	122.7	0.45	295,00	6801 0660 000/0
4"	101.6 x 2.11	161.7	0.96	448,00	6801 0662 000/0



for pipe DIN EN 10357, Series C

Tangent Pig, long, Series C

DN ISO	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
33.7	33.7 x 2	58.39	0.04	115,00	6801 0679 000/0
48.3	48.3 x 2	79.14	0.12	165,00	6801 0681 000/0
60.3	60.3 x 2	97.91	0.22	195,00	6801 0682 000/0
78.1	76.1 x 2	130.3	0.44	274,00	6801 0683 000/0
88.9	88.9 x 2.3	142.5	0.66	360,00	6801 0684 000/0
114.3	114.3 x 2.3	185.9	1.49	449,00	6801 0685 000/0

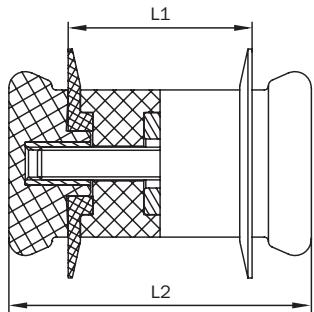


for pipe DIN EN 10357, Series D

Tangent Pig, long, Series D

DN SMS	Pipe-Ø	L	Weight [kg]	Silicone (white)	
				Price/EUR	Article No.
25	25 x 1.25	44	0.02	120,00	6801 0691 000/0
38	38 x 1.25	65.5	0.07	133,00	6801 0692 000/0
51	51 x 1.25	85.5	0.15	182,00	6801 0693 000/0
63.5	63.5 x 1.5	103	0.26	215,00	6801 0694 000/0
76.1	76.1 x 1.6	122.5	0.45	295,00	6801 0695 000/0

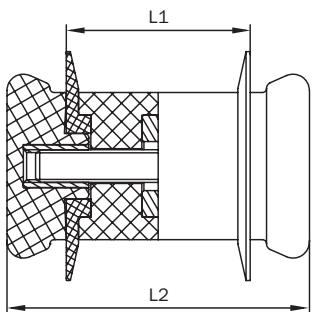
Pigs



for pipe DIN EN 10357, Series A

Lip Pig Series A

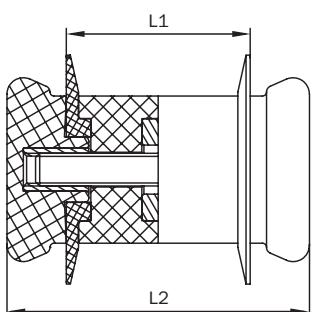
DN DIN	Pipe-Ø	L1	L2	Weight [kg]	PVDF/Silicone (white)	
					Price/EUR	Article No.
25	29 x 1.5	26	39	0.02	309,00	6801 0405 000/0
40	41 x 1.5	38	57	0.10	319,00	6801 0407 000/0
50	53 x 1.5	46	74	0.19	343,00	6801 0408 000/0
65	70 x 2	56	88	0.33	357,00	6801 0409 000/0
80	85 x 2	74	110	0.69	376,00	6801 0410 000/0
100	104 x 2	88	130	1.22	606,00	6801 0412 000/0



for pipe DIN EN 10357, Series D

Lip Pig Series D

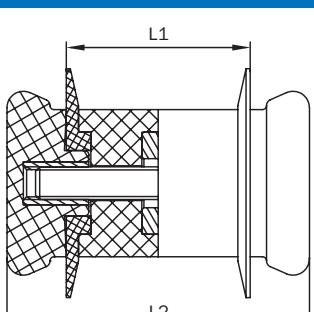
DN Inch	Pipe-Ø	L1	L2	Weight [kg]	PVDF/Silicone (white)	
					Price/EUR	Article No.
1"	25.4 x 1.65	23	36	0.02	305,00	6801 0454 000/0
1 1/2"	38.1 x 1.65	35	54	0.09	315,00	6801 0457 000/0
2"	50.8 x 1.65	44	72	0.18	340,00	6801 0458 000/0
2 1/2"	63.5 x 1.65	51	82	0.30	356,00	6801 0459 000/0
3"	76.2 x 1.65	66	102	0.65	372,00	6801 0460 000/0
4"	101.6 x 2.11	85.5	128	1.10	598,00	6801 0462 000/0



for pipe DIN EN 10357, Series C

Lip Pig Series C

DN ISO	Pipe-Ø	L1	L2	Weight [kg]	PVDF/Silicone (white)	
					Price/EUR	Article No.
33.7	33.7 x 2	30	46	0.03	313,00	6801 0479 000/0
48.3	48.3 x 2	44.5	73	0.18	338,00	6801 0481 000/0
60.3	60.3 x 2	52	82	0.30	356,00	6801 0482 000/0
78.1	76.1 x 2	61.5	94	0.36	372,00	6801 0483 000/0
88.9	88.9 x 2.3	77	116	0.73	490,00	6801 0484 000/0
114.3	114.3 x 2.3	95	145	1.45	645,00	6801 0485 000/0

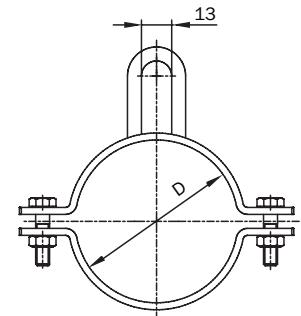


for pipe DIN EN 10357, Series D

Lip Pig Series D

DN SMS	Pipe-Ø	L1	L2	Weight [kg]	PVDF/Silicone (white)	
					Price/EUR	Article No.
25	25 x 1.25	23	36	0.02	306,00	6801 0491 000/0
38	38 x 1.25	36	55	0.09	316,00	6801 0492 000/0
51	51 x 1.25	45	73	0.19	342,00	6801 0493 000/0
63.5	63.5 x 1.5	51	82	0.30	358,00	6801 0494 000/0
76.1	76.1 x 1.6	66	102	0.65	375,00	6801 0495 000/0

Pig Accessories



Other variants on request.

Pipe Clamp with Sensor Bracket

DN	D	Weight [kg]	Price/EUR	Article No.
25	28	0.11	41,10	6831 00 05 001
40	40	0.13	41,80	6831 00 07 001
50	52	0.15	42,30	6831 00 08 001
65	70	0.18	42,50	6831 00 09 001
80	85	0.24	43,93	6831 00 10 001
100	104	0.28	44,64	6831 00 12 001

Sensor for Pig Location MGT200

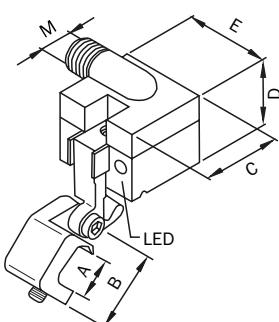
L	M	Weight [kg]	Price/EUR	Article No.
60	M12 x 1	0.013	76,45	390110

Sensor for Pig Location MGT201

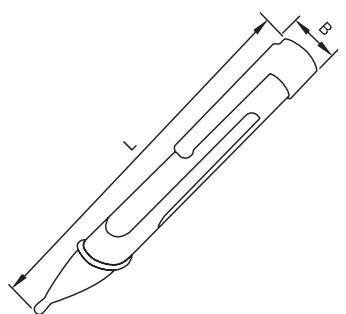
L	M	M1	Weight [kg]	Price/EUR	Article No.
60	M12 x 1	M18 x 1	0.026	89,75	390133

Sensor for Pig Location with Bracket

A	B	C	D	E	M	Weight [kg]	Price/EUR	Article No.
14	29.5	28	23.8	30	M12 x 1	0.084	81,10	6820 0072 01

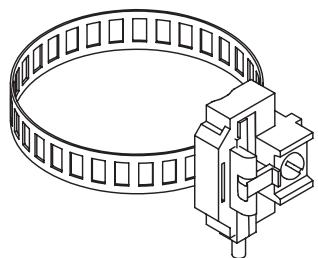


Pig Accessories



Manual Sensor for Pig Location

L	B	Weight [kg]	Price/EUR	Article No.
158	25	0.05	34,70	6820 0007 01



Comprised of two sensors each
with adaption.

End Position Sensor for Pneumatic Cylinder

Weight [kg]	Price/EUR	Article No.
0.05	144,00	66R0 0000 0000 100



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