



sartorius intec

A Minebea Group Company

The solution for high product throughput Freefall Metal Detection System Vistus® with SW separator



Benefits

SW separator

- For high product throughput: the design successfully prevents the product from being crushed, increasing quality standards

Freefall Metal Detection System Vistus®

- Maximum detection sensitivity
- True In-Process Validation
- Quality pipes suitable for food products
- Efficient separation systems
- Minimal installation height
- Easy installation and operation



The innovative Freefall Metal Detection System Vistus®, in combination with the SW separator, ensures reliable detection of metal foreign bodies without crushing the product, while maintaining a high product throughput.

Perfected for maximum safety



The Freefall System Vistus® offers maximum detection performance for your production lines. All **metal foreign bodies, including ferrous and non-ferrous metals and even non-magnetic stainless steels**, are consistently detected and separated from the production line.



With Vistus® you have the option to create a specially adapted metal detection system to suit your exact requirements, resulting in optimal detection effects for **dusty, free-flowing products and loose granules** at all times.



Maximum reliability: the **True In-Process Validation** option verifies the exceptional detection sensitivity of Vistus® in the centre of the pipe, i.e. the centre of your product flow.



When combined with the **SW separator**, Vistus® is an optimal solution for high product throughput. Swivelling the pipe segment out effectively prevents the product from being crushed.

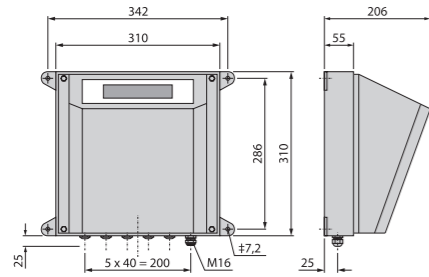
Freefall Metal Detection System Vistus® with SW separator

The SW separator is used to configure your Freefall System Vistus® for high product throughput applications. Swivelling the pipe segment out effectively prevents the product from being crushed, ensuring even higher product quality.

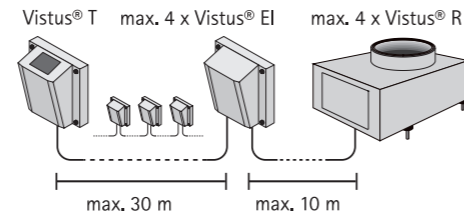
By choosing a combination of search coil, pipe and optional True In-Process Validation you can customise your metal detection system to meet your specific needs.

Control unit

Vistus® E remote terminal
Scale drawing

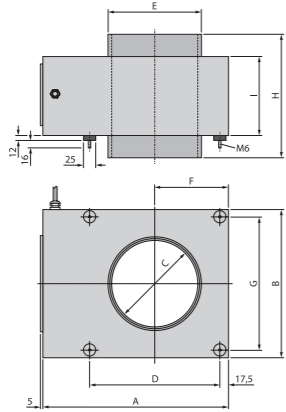


One control unit is suitable for connecting up to four search coils



Search coil options

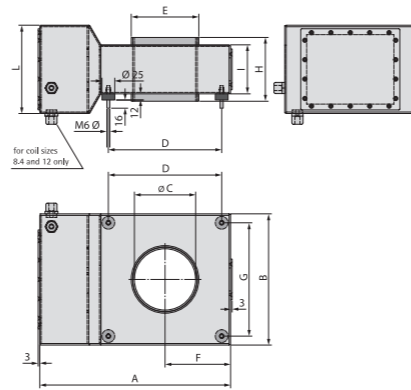
Vistus® R search coil
Scale drawing



Coil dimensions

Vistus® R	A	B	C	D	E	F	G	H	I	kg
2,8			28		39,5			175		12
5,9	289	195	59	160	70,5	97,5	160	185	125	10,7
8,4			84		97,5			195		9,2
12			120		132,5			205		7,7
17,2	393	300	172	256	187,5	150	265	250	160	16,5
21,6			216		232,5			260		14,6
26,9			269		288			310		28
34,1	523	430	341	359	363	215	395	320	200	30

Vistus® RMFZ search coil
Scale drawing



Coil dimensions

Vistus® RMFZ	A	B	C	D	E	F	G	H	I	L	kg
8,4	337	212	84	177	97,5	106	177	88	68	173	9,5
12	374	257	120	222	132,5	129	222	125	96	173	13
17,2	427	322	172	287	187,5	161	287	180	138	173	19,5
21,6	473	380	216	345	232,5	190	345	225	173	173	25
26,9	538	445	269	410	288	223	410	280	215	215	36
34,1	627	534	341	499	363	267	499	355	273	273	55

Pipe quality options

Various materials are available for the freefall pipe of the metal detector:

PP – standard polypropylene pipe: Suitable for detection of foreign bodies in products that do not generate static electricity. Universal solution for products that are not susceptible to electrical discharge. Outer graphite coating for static discharge.

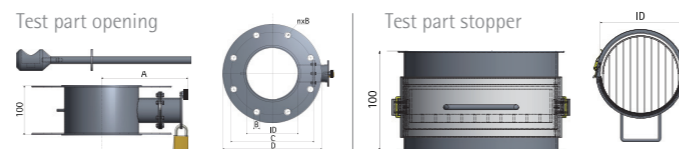
ESD: Meets food safety requirements thanks to health clearance as per EU regulations (nos 10/2011 and 1935/2004). The ESD pipe continually neutralises static charging.

Ceramic: For applications with product temperatures up to 150°C (available upon request).

Pipe material	Product temp. $\vartheta < 70^{\circ}\text{C}$		Product temp. $\vartheta > 70^{\circ}\text{C}$		Illustration
	electrostatic charging	abrasive	electrostatic charging	abrasive	
PP graphite-coated	●				
ESD	●		●		
Ceramic	●	●	●	●	

True In-Process Validation

Scale drawing

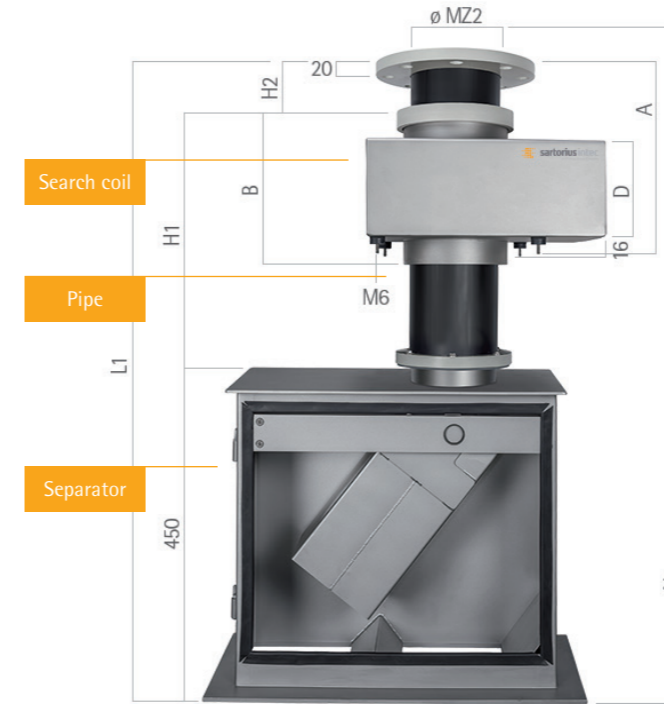


ID	A	B	C	D	n
100	139	18	180	220	8
150	166	18	240	285	8
200	192,5	22	295	340	8
250	218	22	350	395	12
300	243,5	22	400	445	12

Ask us about our suitable test part range.

Complete Vistus® system with SW separator

Scale drawing



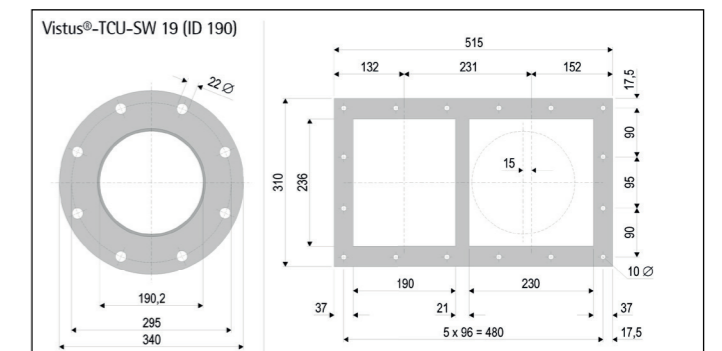
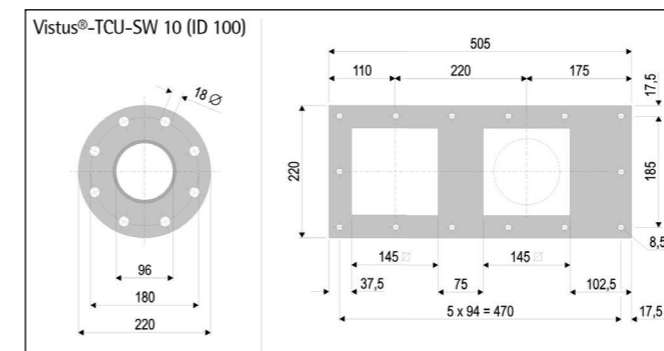
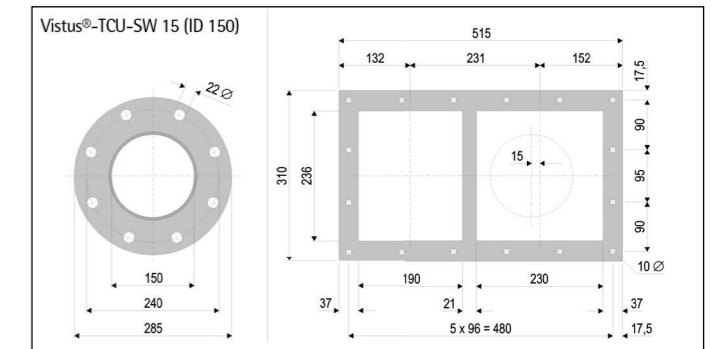
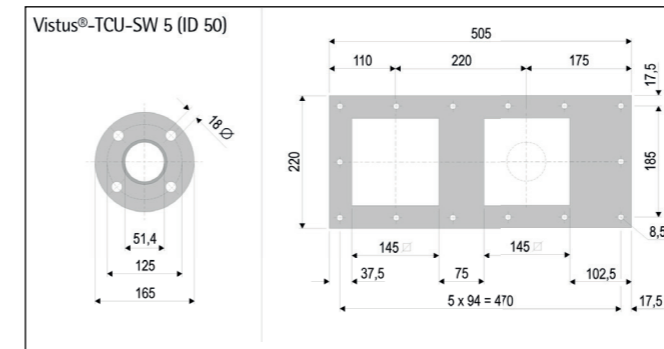
The standard freefall system is suitable for product temperatures up to +70°C in ambient temperatures up to +55°C. The air cooling option may be required with higher temperatures. We are happy to help you integrate the system into your process. Our project team will create a custom frame for installation in your production line if required. Alternatively, you can select one of the versions listed here with larger pipe cross-sections or without a separator.

All dimensions are in mm.

Standard version for Vistus® with SW separator

Vistus® R	5,9	8,4	12	17,2	21,6
Vistus®-TCU-SW	4	5	10	15	19
MZ1	47	67	100	140	165
MZ2 Ø	50	70,5	132,5	187,5	232,5
Ah	1500	1500	1500	1100	1100
B	220	230	240	250	260
H1	250	260	270	276	336
H2	47	67	96	140	114
L1	730	760	820	870	900

Scale drawing of connection flange and TCU-SW connection



Maximum throughput per inner diameter

Vistus®-TCU-SW		Search coil	Throughput kg/h
Type	Inner diameter	Vistus®-R Vistus®-R RMFZ	
Vistus®-TCU-SW 5	ID 50	5,9	1500
Vistus®-TCU-SW 10	ID 100	12,0	6000
Vistus®-TCU-SW 15	ID 150	17,2	13.500
Vistus®-TCU-SW 19	ID 190	21,6	24.000

Technical data for Vistus® with SW separator

Supply pressure	4.0 bar to max. 3.0 bar overpressure		
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Operating pressure	Max. 3.0 bar overpressure		
Air consumption	Approx. 1 litres per separation		
Solenoid valve for compressed air connection	R 1/4" internal thread for plastic tube 6 mm		
Compressed air tank	G 1/2" with connection for plastic tube 14 mm (included in purchase price when purchasing complete system with separator)		
Pressure relief valve	Provided free of charge to protect your system		
Recommended on-site compressed air quality	Particulate matter	class 4	(Quality classes as per PNEUROP recommendation 6611)
	Water	class 2	
	Oil	class 2	
Drop height	See dimension Ah according to scale drawing		
Solenoid valve - Supply voltage	5/2-way valve monostable Choice of 230 V _{AC} or 115 V _{AC} 50/60 Hz or 24 V _{DC} standard or 48 V _{DC} (please specify any deviations from the standard (24 V DC) upon order)		
- Activation	via 'Metal' relay on evaluation electronics		
Protection class	IP 54 (complete system; higher if necessary for individual elements)		
Supply voltage	90 V to 260 V		
User interface	145 mm (5.7") touchscreen Password-protected, user-specific access to dialogues that are organised and adapted by functional areas Automatic teach-in function		
Relay outputs	Total of 4 relays ---> relays 1, 3 and 4 freely programmable Relay 2 'Error': fixed assignment		
Relative air humidity	Operation: < 58% at +55 °C Storage: < 30% at +70 °C, 0% to 90% condensation-free		
Ambient temperature	Operation: -10 °C to +55 °C		
Product temperature	-30 to +55 °C, up to +150 °C with air cooling		
Data interfaces	TCP IP, RS232, RS422, CAN bus, fieldbus and Profibus		
Network connection	Ethernet		
Options	Ext. acknowledge button, login using fingerprint sensor, remote control, end position monitoring, USB printing and much more		

This technical data serves only as a product description and should not be interpreted as a legally binding quality guarantee.

We reserve the right to make technical modifications.
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