



# **Armaturen GmbH**

**Armaturen, Rohre, Sonderteile aus Edelstahl**  
fittings, pipes, special parts of stainless steel

**Behälterarmaturen**  
tank equipment



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**9 Behälterarmaturen**  
**9 tank equipment**

Hygienische Prozesse erfordern hochwertige Armaturen. Hier kommen z.B. unsere HyCom-Federsicherheitsventile (Blatt 9.05 – 9.06) zum Einsatz. Sie sind speziell für diese Prozesse konzipiert worden. Charakteristisch für diese Ventile ist ihr Kugelgehäuse und ihre hohe Oberflächengüte der medienberührten Teile.



**HyCom-FeSiVe**  
HyCom-safety valve spring loaded


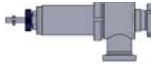


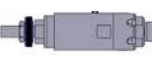
Hygienic processes need high-quality fittings. Here our HyCom-safety valve spring loaded can be applied (see page 9.05 – 9.06). This product has especially been planned for those processes. Key characteristics of those valves are their spherical housing and the high surface finish of those parts which are in contact with the media.



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## Fakten Federsicherheitsventile






	Fluide Gruppe II	Öffnungscharakteristik	Nennweite [DN]	Druckbereich [bar]	Anlüfteinrichtung (pneumatisch)	Stellungsrückmeldung	Heizeinrichtung
 <b>Art.-Nr. 10901 - 10903</b> Typ FHCSV02 d <sub>0</sub> 24 mm - d <sub>0</sub> 75 mm	D/G/F	Normal-Sicherheitsventil	25 - 50 65 - 80 25 - 80	0,5 - 8,0 (D/G) 0,5 - 10,0 (D/G) 0,5 - 10,0 (F)	•	•	•
				0,7 - 12,0 (D/G) 0,5 - 8,0 (D/G) 0,5 - 7,0 (D/G) 0,6 - 3,5 (D/G) 0,5 - 3,1 (D/G) 0,5 - 3,5 (D/G) 2,0 - 12,0 (F) 1,0 - 9,0 (F) 0,5 - 8,0 (F) 0,5 - 5,0 (F)			
 <b>Art.-Nr. 92010</b> Typ FSV2000 d <sub>0</sub> 25 mm - d <sub>0</sub> 94 mm	D/G/F	Normal-Sicherheitsventil	25 40 50 65 80 100 25 40 50 65 - 100		•	•	•
 <b>Art.-Nr. 92030 - 92040</b> Typ 021 d <sub>0</sub> 14 mm	D/G	Normal-Sicherheitsventil	15	2,0 - 8,0 (D/G)			
 <b>Art.-Nr. 92030 - 92040</b> Typ 020 d <sub>0</sub> 15 mm	F	Normal-Sicherheitsventil	15	1,0 - 8,0 (F)			
 <b>Art.-Nr. 92050 - 92060</b> Typ 019 d <sub>0</sub> 15 mm - d <sub>0</sub> 24 mm	D/G	Normal-Sicherheitsventil	15 24	1,0 - 8,0 (D/G)			

• - optional erhältlich, d<sub>0</sub> - engster Strömungsquerschnitt

Fluide: D - Dämpfe, G - Gase, F - Flüssigkeiten



## Facts Safety valve spring loaded

	fluids group II	opening characteristic	size [DN]	pressure range [bar]	lifting device (pneumatic)	position reply	heating device
 <b>item no. 10901 - 10903</b> type FHCSV02 d <sub>0</sub> 24 mm - d <sub>0</sub> 75 mm	D/G/F	normal safety valve	25 - 50 65 - 80 25 - 80	0,5 - 8,0 (D/G) 0,5 - 10,0 (D/G) 0,5 - 10,0 (F)	•	•	•
			25 40 50 65 80 100 25 40 50 65 - 100	0,7 - 12,0 (D/G) 0,5 - 8,0 (D/G) 0,5 - 7,0 (D/G) 0,6 - 3,5 (D/G) 0,5 - 3,1 (D/G) 0,5 - 3,5 (D/G) 2,0 - 12,0 (F) 1,0 - 9,0 (F) 0,5 - 8,0 (F) 0,5 - 5,0 (F)	•	•	•
	D/G/F	normal safety valve					
 <b>item no. 92010</b> type FSV2000 d <sub>0</sub> 25 mm - d <sub>0</sub> 94 mm	D/G	normal safety valve	15	2,0 - 8,0 (D/G)			
	F	normal safety valve	15	1,0 - 8,0 (F)			
 <b>item no. 92030 - 92040</b> type 021 d <sub>0</sub> 14 mm	D/G	normal safety valve	15	2,0 - 8,0 (D/G)			
	F	normal safety valve	15	1,0 - 8,0 (F)			
 <b>item no. 92030 - 92040</b> type 020 d <sub>0</sub> 15 mm	D/G	normal safety valve	15 24	1,0 - 8,0 (D/G)			
	D/G	normal safety valve					
 <b>item no. 92050 - 92060</b> type 019 d <sub>0</sub> 15 mm - d <sub>0</sub> 24 mm	D/G	normal safety valve	15 24	1,0 - 8,0 (D/G)			
	D/G	normal safety valve					

• - optional available, d<sub>0</sub> - narrowest flow area

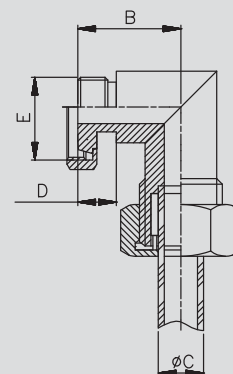
fluids: D - steam, G - gas, F - liquids

**9.01 Standanzeige**
**9.01 level indicator**

Art.-Nr. 9101-							AISI 304/304L-1.4301/1.4307		AISI 316L-1.4404	
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis
	mm	mm	mm	mm	mm	kg	poliert	EUR	poliert	EUR
10	41,0	13/10			G1/2"	0,170	-00101	56,00	-00103	75,60
15	41,0	15/10			G1/2"	0,240	-00151	56,00	-00153	75,60
20	41,0	20/15			G1/2"	0,700	-00201	66,05	-00203	89,20
10	41,0	13/10			Rd44x1/6	0,700	-20101	77,00	-20103	104,00
15	41,0	15/10			Rd44x1/6	0,700	-20151	77,00	-20153	104,00
20	41,0	20/15			Rd44x1/6	0,810	-20201	87,05	-20203	117,60

G: Rohrgewinde ISO 228-1  
Rd: Rundgewinde

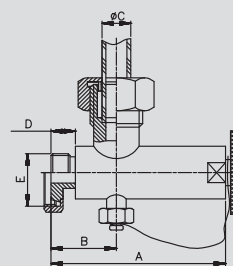
G: pipe thread ISO 228-1  
Rd: round thread

**Obere Standanzeige**
**upper level indicator**


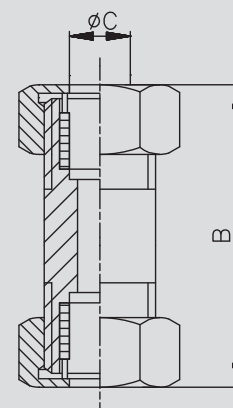
Art.-Nr. 9102-							AISI 304/304L-1.4301/1.4307		AISI 316L-1.4404	
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis
	mm	mm	mm	mm	mm	kg	poliert	EUR	poliert	EUR
10	92,0	41,0	13/10		G1/2"	0,580	-00101	93,30	-00103	126,00
15	92,0	41,0	15/10		G1/2"	0,600	-00151	93,30	-00153	126,00
20	92,0	41,0	20/15		G1/2"	0,780	-00201	103,40	-00203	139,60
10	92,0	41,0	13/10		Rd44x1/6	0,760	-20101	114,30	-20103	154,35
15	92,0	41,0	15/10		Rd44x1/6	0,760	-20151	114,30	-20153	154,35
20	92,0	41,0	20/15		Rd44x1/6	0,780	-20201	124,40	-20203	167,95

G: Rohrgewinde ISO 228-1  
Rd: Rundgewinde

G: pipe thread ISO 228-1  
Rd: round thread

**Untere Standanzeige**
**lower level indicator**


Art.-Nr. 9103-							AISI 304/304L-1.4301/1.4307		AISI 316L-1.4404	
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis
	mm	mm	mm	mm	mm	kg	poliert	EUR	poliert	EUR
10	68,0	13/10				0,260	-00101	50,35	-00103	68,00
15	68,0	15/10				0,220	-00151	50,35	-00153	68,00
20	82,0	20/15				0,340	-00201	60,25	-00203	81,35

**Zwischenstück  
Standanzeige**
**intermediate piece**


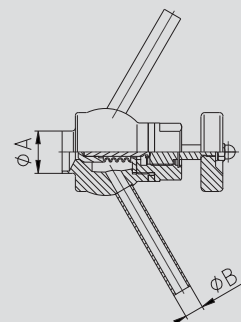




**9.03 Probenahmeventil**
**9.03 sampling valve**
**Art.-Nr. 10950-**

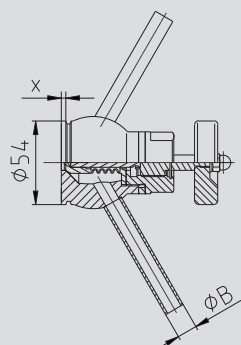
DN	A	B	C	D	E	Gew.
	mm	mm	mm	mm	mm	kg
25/10	29,0	13,0				1,140

Art.-Nr.	Preis	Art.-Nr.	Preis
<b>NEU - technische Details siehe 10.01.36</b> <b>new - technical details see 10.01.36</b>			

**Steril-  
Probenahmeventil**
**sterile-  
sampling-valve**

**Art.-Nr. 10951-**

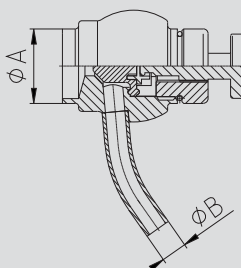
DN	A	B	C	D	E	Gew.
	mm	mm	mm	mm	mm	kg
25/10	29,0	13,0				1,140

Art.-Nr.	Preis	Art.-Nr.	Preis
<b>NEU - technische Details siehe 10.01.36</b> <b>new - technical details see 10.01.36</b>			

**Steril-  
Probenahmeventil**
**sterile-  
sampling-valve**

**Art.-Nr. 10952-**

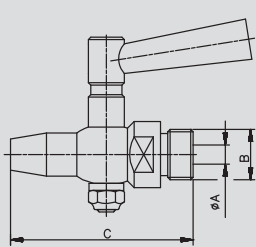
DN	A	B	C	D	E	Gew.
	mm	mm	mm	mm	mm	kg
10/6	13,0	8,0				1,114
15/6	19,0	8,0				1,160
20/6	23,0	8,0				1,180

Art.-Nr.	Preis	Art.-Nr.	Preis
<b>NEU - technische Details siehe 10.01.36</b> <b>new - technical details see 10.01.36</b>			

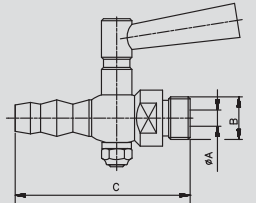
**Membran-  
Probenahmeventil**
**diaphragm-  
sampling-valve**


**9.04 Hahn**
**9.04 cock**

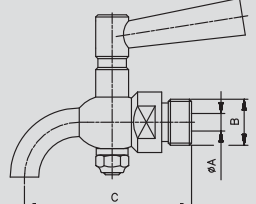
Probierhahn test cock		Art.-Nr. 91220-						AISI 316Ti / 316L-1.4571 / 1.4404		
DN	A mm	B mm	C mm	D mm	E mm	Gew. kg	Art.-Nr. poliert	Preis EUR		
4	5,0	G1/4"	62,0			0,100	-0043	59,15		
6	6,0	G3/8"	66,0			0,160	-0063	74,90		
8	8,0	G1/2"	78,0			0,260	-0083	77,75		
12	12,0	G3/4"	100,0			0,520	-0123	111,85		
20	15,0	G1"	128,0			0,840	-0203	177,15		
G: Rohrgewinde ISO 228-1							G: pipe thread ISO 228-1			



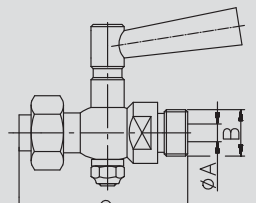
Probierhahn mit Tülle test cock with nozzle		Art.-Nr. 91230-						AISI 316Ti / 316L-1.4571 / 1.4404		
DN	A mm	B mm	C mm	D mm	E mm	Gew. kg	Art.-Nr. poliert	Preis EUR		
4	5,0	G1/4"	70,0			0,100	-0043	57,75		
6	6,0	G3/8"	82,0			0,160	-0063	70,60		
8	8,0	G1/2"	93,0			0,260	-0083	82,00		
12	12,0	G3/4"	113,0			0,500	-0123	93,40		
20	15,0	G1"	143,0			0,820	-0203	175,35		
G: Rohrgewinde ISO 228-1							G: pipe thread ISO 228-1			



Ablasshahn drain cock		Art.-Nr. 91210-						AISI 316Ti / 316L-1.4571 / 1.4404		
DN	A mm	B mm	C mm	D mm	E mm	Gew. kg	Art.-Nr. poliert	Preis EUR		
4	5,0	G1/4"	55,0			0,090	-0043	70,60		
6	6,0	G3/8"	65,0			0,170	-0063	84,80		
8	8,0	G1/2"	70,0			0,270	-0083	97,70		
12	12,0	G3/4"	95,0			0,560	-0123	147,55		
20	15,0	G1"	125,0			0,880	-0203	203,50		
G: Rohrgewinde ISO 228-1							G: pipe thread ISO 228-1			

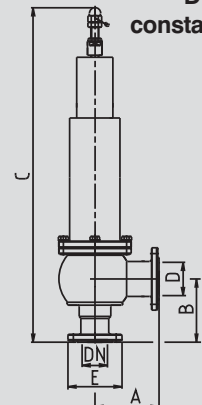


Ablasshahn mit Muffe drain cock with socket		Art.-Nr. 91240-						AISI 316Ti / 316L-1.4571 / 1.4404		
DN	A mm	B mm	C mm	D mm	E mm	Gew. kg	Art.-Nr. poliert	Preis EUR		
4	4,0	G1/4"	56,0			0,100	-0043	73,40		
6	6,0	G3/8"	68,0			0,190	-0063	82,00		
8	8,0	G1/2"	74,0			0,300	-0083	100,50		
12	12,0	G3/4"	96,0			0,640	-0123	168,60		
20	20,0	G1"	113,0			0,920	-0203	239,40		
G: Rohrgewinde ISO 228-1							G: pipe thread ISO 228-1			

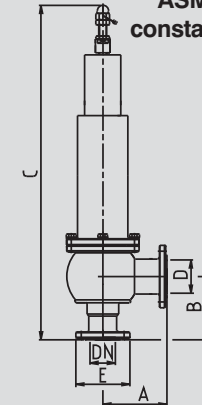


**9.05 HyCom-Federsicherheitsventil NF (Nutflansch) manuell**
**9.05 HyCom-safety valve spring loaded FG (flange groove) manual**

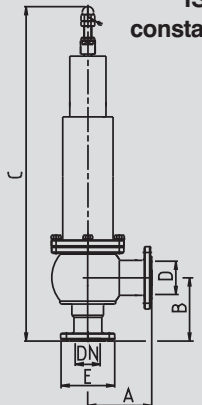
Art.-Nr. 10901-							AISI 316L-1.4404							
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	EPDM/Ra0,8	EUR	FKM/Ra0,8	EUR	EPDM/Ra0,4	EUR	FKM/Ra0,4	EUR
25	85,0	85,0	450,0	38,0	70,0		-0258377	1605,80	-0258477	(+)	-0259377	(+)	-0259477	(+)
40	95,0	95,0	575,0	50,0	82,0		-0408377	1817,80	-0408477	(+)	-0409377	(+)	-0409477	(+)
50	105,0	105,0	630,0	66,0	94,0		-0508377	1948,50	-0508477	(+)	-0509377	(+)	-0509477	(+)
65	117,0	115,0	750,0	81,0	113,0		-0658377	2657,60	-0658477	(+)	-0659377	(+)	-0659477	(+)
80	132,0	132,0	830,0	100,0	133,0		-0808377	3363,20	-0808477	(+)	-0809377	(+)	-0809477	(+)
weitere Anschlussvarianten auf Anfrage							other connection varieties on inquiry							

**HyCom-Fe.Si.Ve. NF**  
**DIN**  
**konstant**
**HyCom-safety valve**  
**spring loaded FG**  
**DIN**  
**konstant**


Art.-Nr. 10902-							AISI 316L-1.4404							
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	EPDM/Ra0,8	EUR	FKM/Ra0,8	EUR	EPDM/Ra0,4	EUR	FKM/Ra0,4	EUR
1,5"	95,0	95,0	575,0	47,5	79,0		-1128377	1817,80	-1128477	(+)	-1129377	(+)	-1129477	(+)
2"	105,0	105,0	630,0	60,2	92,0		-2008377	1948,50	-2008477	(+)	-2009377	(+)	-2009477	(+)
2,5"	115,0	115,0	750,0	72,9	107,0		-2128377	2657,60	-2128477	(+)	-2129377	(+)	-2129477	(+)
3"	132,0	130,0	828,0	97,4	125,0		-3008377	3363,20	-3008477	(+)	-3009377	(+)	-3009477	(+)
weitere Anschlussvarianten auf Anfrage							other connection varieties on inquiry							

**HyCom-Fe.Si.Ve. NF**  
**ASME**  
**konstant**
**HyCom-safety valve**  
**spring loaded FG**  
**ASME**  
**konstant**


Art.-Nr. 10903-							AISI 316L-1.4404							
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	EPDM/Ra0,8	EUR	FKM/Ra0,8	EUR	EPDM/Ra0,4	EUR	FKM/Ra0,4	EUR
33,7	90,0	90,0	455,0	38,4	74,0		-0258377	1605,80	-0258477	(+)	-0259377	(+)	-0259477	(+)
48,3	95,0	95,0	575,0	56,3	88,0		-0408377	1817,80	-0408477	(+)	-0409377	(+)	-0409477	(+)
60,3	114,0	114,0	639,0	72,1	103,0		-0508377	1948,50	-0508477	(+)	-0509377	(+)	-0509477	(+)
76,1	119,0	117,0	752,0	84,3	125,0		-0658377	2657,60	-0658477	(+)	-0659377	(+)	-0659477	(+)
88,9	132,0	132,0	830,0	114,3	137,0		-0808377	3363,20	-0808477	(+)	-0809377	(+)	-0809477	(+)
weitere Anschlussvarianten auf Anfrage (+) Preis auf Anfrage							other connection varieties on inquiry (+) price on inquiry							

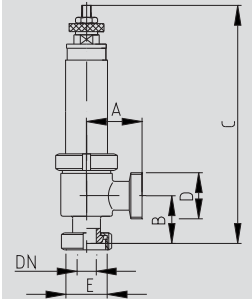
**HyCom-Fe.Si.Ve. NF**  
**ISO**  
**konstant**
**HyCom-safety valve**  
**spring loaded FG**  
**ISO**  
**konstant**




**9.07 Federsicherheitsventil**
**9.07 safety valve spring loaded**

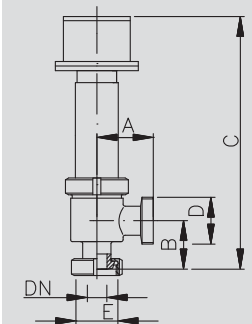
Art.-Nr. 92010-							AISI 304/304L-1.4301/1.4307				AISI 316L-1.4404			
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	pol. EPDM	EUR	matt EPDM	EUR	pol. EPDM	EUR	matt EPDM	EUR
25	70,0	60,0	280,0	58x1/6	52x1/6	2,480	-0251300	575,65	-0252300	531,90	-0253300	678,30	-0254300	624,60
40	85,0	75,0	385,0	78x1/6	65x1/6	5,900	-0401300	793,10	-0402300	732,45	-0403300	933,85	-0404300	860,20
50	110,0	105,0	450,0	95x1/6	78x1/6	10,120	-0501300	1189,70	-0502300	1098,15	-0503300	1399,75	-0504300	1290,30
65	130,0	135,0	555,0	110x1/4	95x1/6	22,540	-0651300	1638,90	-0652300	1513,50	-0653300	1929,60	-0654300	1778,45
80	160,0	160,0	710,0	130x1/4	110x1/4	29,400	-0801300	3156,20	-0802300	2912,45	-0803300	(+)	-0804300	(+)
100	185,0	185,0	810,0	160x1/4	130x1/4	36,520	-1001300	3691,15	-1002300	3323,10	-1003300	(+)	-1004300	(+)

TÜV-bauteilgeprüft für Gase, Dämpfe und Flüssigkeiten  
Einstelldruck p angeben - D + E: Rundgewinde Rd

TÜV inspected for gas, steam and fluids  
please indicate pressure - D+E: round thread Rd

**Federsicherheitsventil KG mit Handanlüftung**  
  
**safety valve spring loaded with manual lift up**

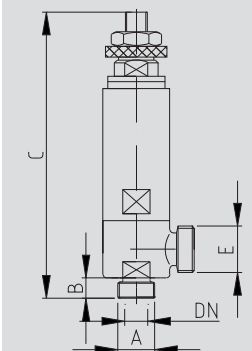
Art.-Nr. 92020-							AISI 304/304L-1.4301/1.4307				AISI 316L-1.4404			
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	pol. EPDM	EUR	matt EPDM	EUR	pol. EPDM	EUR	matt EPDM	EUR
25	70,0	60,0	380,0	58x1/6	52x1/6	9,460	-0251300	996,20	-0252300	919,60	-0253300	1089,80	-0254300	1004,25
40	85,0	75,0	485,0	78x1/6	65x1/6	11,860	-0401300	1273,95	-0402300	1176,45	-0403300	1405,40	-0404300	1295,05
50	110,0	105,0	550,0	95x1/6	78x1/6	19,640	-0501300	1702,15	-0502300	1570,85	-0503300	1902,35	-0504300	1753,15
65	130,0	135,0	655,0	110x1/4	95x1/6	21,000	-0651300	2296,00	-0652300	2119,90	-0653300	2574,05	-0654300	2372,15
80	160,0	160,0	810,0	130x1/4	110x1/4	30,120	-0801300	3973,20	-0802300	3666,85	-0803300	(+)	-0804300	(+)
100	185,0	185,0	910,0	160x1/4	130x1/4	37,730	-1001300	4646,10	-1002300	4278,00	-1003300	(+)	-1004300	(+)

TÜV-bauteilgeprüft für Gase, Dämpfe und Flüssigkeiten  
Einstelldruck p angeben - D + E: Rundgewinde Rd

TÜV inspected for gas, steam and fluids  
please indicate pressure - D+E: round thread Rd

**Federsicherheitsventil KG mit pneumatischer Anlüftung**  
  
**safety valve spring loaded with pneumatic lift up**

Art.-Nr. 9203-							AISI 316L-1.4404			
DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis
mm	mm	mm	mm	mm	mm	kg	pol. EPDM	EUR	matt EPDM	EUR
14	G1/2"	15,0	210,0	Typ21	Rd34x1/8	1,800	-00123300	438,65	-00124300	406,85
14	G3/4"	15,0	210,0	Typ21	Rd34x1/8	1,840	-00343300	438,65	-00344300	406,85
15	G1/2"	15,0	210,0	Typ20	Rd34x1/8	1,680	-10123300	438,65	-10124300	406,85
15	G3/4"	15,0	210,0	Typ20	Rd34x1/8	1,800	-10343300	438,65	-10344300	406,85

Typ 20: TÜV-bauteilgeprüft für Flüssigkeiten (p= 1-8bar)  
Typ 21: TÜV-bauteilgeprüft für Gase und Dämpfe (p= 2-8bar)  
Rd: Rundgewinde  
(+) Preis auf Anfrage

type 20: TÜV inspected for fluids (p=1-8bar)  
type 21: TÜV inspected for gas and steam (p=2-8bar)  
Rd: round thread  
(+) price on inquiry

**Federsicherheitsventil Ra/G mit seitlichem Abgang**  
  
**safety valve spring loaded with vertical outlet**



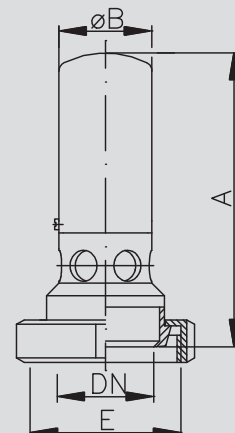
**9.09 Vakuumventil**
**9.09 vacuum valve**
**Art.-Nr. 92210-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
25	126,0	40,0			Rd65x1/6	0,820
40	151,0	52,0			Rd78x1/6	1,200
50	169,0	70,0			Rd95x1/6	2,080
65	192,0	70,0			Rd110x1/4	3,020
80	220,0	85,0			Rd130x1/4	3,520

AISI 304/304L-1.4301/1.4307			
Art.-Nr.	Preis	Art.-Nr.	Preis
pol. EPDM	EUR	matt EPDM	EUR
-0251300	263,55	-0252300	244,70
-0401300	281,50	-0402300	260,60
-0501300	318,30	-0502300	294,45
-0651300	401,90	-0652300	372,00
-0801300	(+)	-0802300	(+)

 bei Bestellung Einbaulage angeben  
 Rd: Rundgewinde

 please specify installation position  
 Rd: round thread

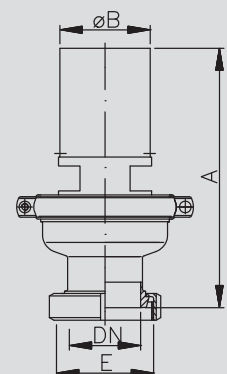
**Vakuumventil K  
federbelastet**
**vacuum valve  
spring loaded**

**Art.-Nr. 92220-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
50	223,0	60,0			Rd78x1/6	2,680
65	270,0	85,0			Rd95x1/6	4,400
80	287,0	104,0			Rd110x1/4	5,760
100	316,0	129,0			Rd130x1/4	9,480
150	415,0	130,0			Rd190x1/4	14,740

AISI 304/304L-1.4301/1.4307			
Art.-Nr.	Preis	Art.-Nr.	Preis
pol. EPDM	EUR	matt EPDM	EUR
-0501300	747,00	-0502300	691,30
-0651300	855,45	-0652300	791,80
-0801300	1043,45	-0802300	966,85
-1001300	1557,70	-1002300	1442,30
-1501300	1965,50	-1502300	1820,30

 für vertikalen Einbau  
 Rd: Rundgewinde

 for vertical installation position  
 Rd: round thread

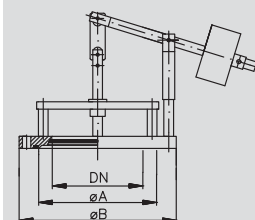
**Vakuumventil  
vertikal K  
federbelastet**
**vacuum valve  
vertical installation  
spring loaded**

**Art.-Nr. 92250-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
50	82,0	150,0				
65	102,0	165,0				
80	124,0	190,0				
100	150,0	210,0				
150	195,0	260,0				
200	245,0	310,0				
250	315,0	385,0				
300	360,0	430,0				
400	460,0	540,0				

AISI 304/304L-1.4301/1.4307			
Art.-Nr.	Preis	Art.-Nr.	Preis
matt EPDM	EUR		EUR
-0502300	701,25		
-0652300	805,70		
-0802300	1014,60		
-1002300	1203,60		
-1502300	1576,55		
-2002300	2183,35		
-2502300	2481,75		
-3002300	2849,80		
-4002300	(+)		

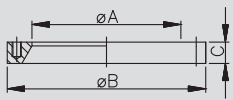
 für vertikalen Einbau  
 (+) Preis auf Anfrage

 for vertical installation position  
 (+) price on inquiry

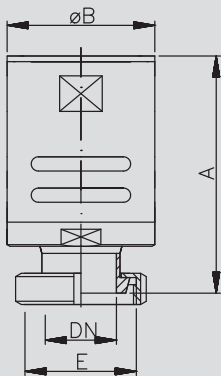
**Vakuumventil F  
gewichtsbelastet**
**vacuum valve  
weight loaded**


**9.10 Einschweißflansch, Be- und Entlüftungsventil**
**9.10 weld-in flange, ventilating valve**

Einschweißflansch für Vakuumventil F  weld-in flange for vacuum valve	Art.-Nr. 92260-							AISI 304/304L-1.4301/1.4307		
	DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	
	mm	mm	mm	mm	mm	mm	kg	matt	EUR	
	50	82,0	150,0	25,0				-0502	84,55	
	65	102,0	165,0	25,0				-0652	94,50	
	80	124,0	190,0	25,0				-0802	111,40	
	100	150,0	210,0	25,0				-1002	147,20	
	150	195,0	260,0	28,0				-1502	190,95	
	200	245,0	310,0	28,0				-2002	232,75	
	250	315,0	385,0	28,0				-2502	266,60	
	300	360,0	430,0	28,0				-3002	333,20	
	400	460,0	540,0	33,0				-4002	(+)	



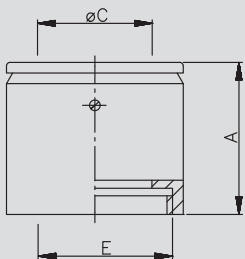
Be- und Entlüftungsventil Edelstahlausführung  ventilating valve stainless steel	Art.-Nr. 92710-							AISI 304/304L-1.4301/1.4307			
	DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis	Art.-Nr.	Preis
	mm	mm	mm	mm	mm	mm	kg	poliert	EUR	matt	EUR
	32	110,0	70,0		Rd58x1/6		2,020	-0321	354,10	-0322	274,50
	50	167,0	104,0		Rd78x1/6		4,840	-0501	371,05	-0502	343,20



Rd: Rundgewinde

Rd: round thread

Be- und Entlüftungsventil Kunststoffausführung  ventilating valve plastic	Art.-Nr. 92720-							Kunststoff / plastic			
	DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis		
	mm	mm	mm	mm	mm	mm	kg		EUR		
	50	101,0		50,0		Rd 78x1/6	0,440	-0500	159,30		
	80	136,0		80,0		Rd110x1/4	1,420	-0800	239,70		
	100	162,0		100,0		Rd130x1/4	1,300	-1000	414,55		
	150	227,0		150,0		Rd190x1/4	6,120	-1500	863,40		


 Maß A bei geöffnetem Ventil -Rd: Rundgewinde  
 (+) Preis auf Anfrage

 dimension A with open valve - Rd: round thread  
 (+) price on inquiry

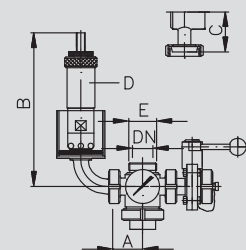


**9.11 Sicherheitsarmatur**
**9.11 safety fitting**
**Art.-Nr. 93010-**

DN	A	B	C	D	E	Gew.
	mm	mm	mm	DN	mm	kg
25	55,0	270,0	75,0	25	Rd52x1/6	7,020
32	63,0	275,0	80,0	25	Rd58x1/6	8,020
40	69,0	278,0	85,0	25	Rd65x1/6	9,000
50	81,0	290,0	95,0	25	Rd78x1/6	11,020

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis	Art.-Nr.	Preis
poliert	EUR	matt	EUR
-0251	799,75	-0252	741,05
-0321	870,35	-0322	805,75
-0401	1208,60	-0402	1119,05
-0501	1364,75	-0502	1263,30

**Sicherheitsarmatur für Lagertank**
**safety fitting for storage tank**

 Rd: Rundgewinde  
 D = DN

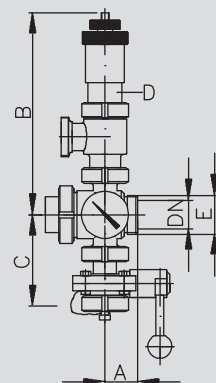
 Rd: round thread  
 D = DN

**Art.-Nr. 93020-**

DN	A	B	C	D	E	Gew.
	mm	mm	mm	DN	mm	kg
25	45,0	328,0	122,0	25	Rd52x1/6	7,460
32	50,0	336,0	134,0	25	Rd58x1/6	8,620
40	53,0	340,0	149,0	25	Rd65x1/6	8,730
50	65,0	458,0	162,0	40	Rd78x1/6	10,100

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis	Art.-Nr.	Preis
poliert	EUR	matt	EUR
-0251	1352,85	-0252	1352,85
-0321	1685,00	-0322	1626,35
-0401	1934,70	-0402	1850,15
-0501	2471,85	-0502	2377,35

**Sicherheitsarmatur für Gär- u. Drucktank**
**safety fitting for fermentation and pressure tank**

 Rd: Rundgewinde  
 D = DN

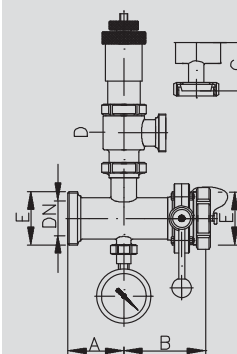
 Rd: round thread  
 D = DN

**Art.-Nr. 93030-**

DN	A	B	C	D	E	Gew.
	mm	mm	mm	DN	mm	kg
32	77,0	106,0	70,0	25	Rd58x1/6	7,000
40	82,0	119,0	75,0	25	Rd65x1/6	7,260
50	93,0	129,0	80,0	40	Rd78x1/6	10,000
65	105,0	141,0	90,0	40	Rd95x1/6	11,250
80	115,0	168,0	100,0	40	Rd110x1/4	14,550

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis	Art.-Nr.	Preis
poliert	EUR	matt	EUR
-0321	984,75	-0322	969,85
-0401	1158,85	-0402	1122,05
-0501	1382,65	-0502	1334,90
-0651	1502,00	-0652	1443,35
-0801	1725,80	-0802	1663,15

**Sicherheitsarmatur für ZKG-Tank**
**safety fitting for fermentation tank**

 Rd: Rundgewinde  
 D = DN

 Rd: round thread  
 D = DN

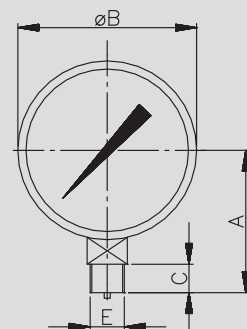


**9.13 Manometer**
**9.13 manometer**
**Art.-Nr. 9386-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	Güteklasse	mm	mm	kg
63	53,0	68,5	12,0	1,6	G1/4"	0,200
100	87,0	112,0	20,0	1,0	G1/2"	0,860

AISI 304/316Ti-1.4301/1.4571

Art.-Nr.	Preis	Art.-Nr.	Preis
ohne Glycerin	EUR	mit Glycerin	EUR
-00632	95,50	-20632	105,50
-01002	102,45	-21002	127,35

**Manometer**
**manometer**


Anzeigebereich bei Bestellung angeben

G: Rohrgewinde ISO 228-1

please indicate measuring range

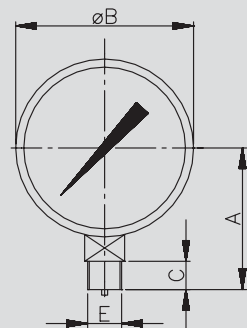
G: pipe thread ISO 228-1

**Art.-Nr. 9387-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	Güteklasse	mm	mm	kg
100	87,0	112,0	20,0	1,0	G1/2"	0,520

AISI 304/316Ti-1.4301/1.4571

Art.-Nr.	Preis
	EUR
-01002	117,40

**Mano-Vakuummeter**
**mano-vacuummeter**


Anzeigebereich -1 / +1,5 bar

G: Rohrgewinde ISO 228-1

measuring range -1 to +1,5 bar

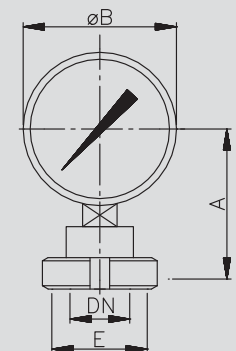
G: pipe thread ISO 228-1

**Art.-Nr. 9388-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	Güteklasse	mm	mm	kg
25	121,0	112,0		1,0	Rd52x1/6	1,100
32	121,0	112,0		1,0	Rd58x1/6	1,320
40	120,0	112,0		1,0	Rd65x1/6	1,360
50	115,0	112,0		1,0	Rd78x1/6	1,400

AISI 304/316Ti-1.4301/1.4571

Art.-Nr.	Preis
	EUR
-00252	308,35
-00322	308,35
-00402	332,25
-00502	385,95

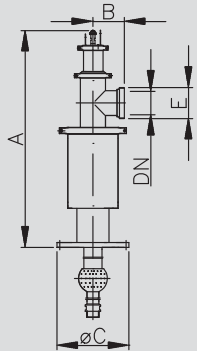
**Manometer mit Membrandruckmittler**
**manometer with pressure transmitter**


Anzeigebereich bei Bestellung angeben

Rd: Rundgewinde

please indicate measuring range

Rd: round thread

**9.14 RBE-Armatur**
**9.14 cleaning gas-/degas-fitting**
**RBE-Armatur DBPa**  
**pneumatische**  
**Umschaltung**
**cleaning gas-/degas-**  
**fitting with**  
**pneumatic switching**

**Art.-Nr. 94010-**

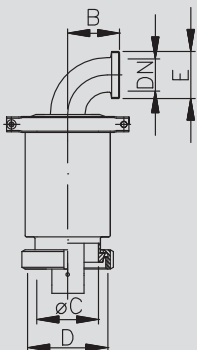
DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
65	800,0	105,0	285,0		Rd95x1/6	
100	900,0	130,0	300,0		Rd130x1/4	

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis
matt	EUR
-0652	(+)
-1002	(+)

 Umschaltung erfolgt zwischen Schwall- und Zielstrahlreinigung  
 Rd: Rundgewinde

 switching between flood and aiming jet cleaning  
 Rd: round thread

**RBE-Armatur DBGM**
**cleaning gas-/degas-**  
**fitting DBGM**

**Art.-Nr. 94020-**

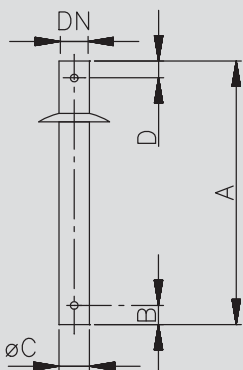
DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
25	181,0	72,0	81,0	Rd110x1/4	Rd52x1/6	
32	186,0	77,0	81,0	Rd110x1/4	Rd58x1/6	
40	196,0	82,0	81,0	Rd110x1/4	Rd65x1/6	
50	247,0	93,0	100,0	Rd130x1/4	Rd78x1/6	
65	318,0	105,0	100,0	Rd130x1/4	Rd95x1/6	
80	343,0	115,0	100,0	Rd130x1/4	Rd110x1/4	
100	355,0	130,0	125,0	Rd160x1/4	Rd130x1/4	

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis
matt	EUR
-0252	447,65
-0322	481,45
-0402	537,15
-0502	656,50
-0652	989,75
-0802	1477,10
-1002	2078,90

 in Kombination mit FeSiVe und/oder Vakuumventil auf Anfrage  
 Rd: Rundgewinde

 in combination with safety and/or vacuum valve on inquiry  
 Rd: round thread

**Sprüh-**  
**befestigungsrohr**  
**für Sprühkopf**
**mounting pipe**  
**for spray ball**

**Art.-Nr. 94060-**

DN	A	B	C	D	E	Gew.
mm	mm	mm	mm	mm	mm	kg
25		15,0	28,0	15,0		
32		15,0	34,0	15,0		
50		15,0	52,0	18,0		

AISI 304/304L-1.4301/1.4307

Art.-Nr.	Preis
matt	EUR
-0252	97,50
-0322	108,45
-0502	138,75

 Maß A gemäß Angabe  
 (+) Preis auf Anfrage

 please indicate dimension A  
 (+) price on inquiry

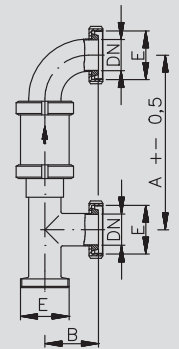
**9.15 RLV-Armatur**
**9.15 cleaning-air valve combination**
**Art.-Nr. 94110-**

AISI 304/304L-1.4301/1.4307

DN	A	B	C	D	E	Gew.	Art.-Nr.	Preis
	mm	mm	mm	mm	mm	kg	matt	EUR
25	186,0	65,0	72,0		Rd52x1/6		-0252	318,85
32	217,0	70,0	77,0		Rd58x1/6		-0322	363,15
40	240,0	75,0	82,0		Rd65x1/6		-0402	397,70
50	280,0	86,0	93,0		Rd78x1/6		-0502	446,65
65	330,0	97,0	105,0		Rd95x1/6		-0652	656,25
80	350,0	107,0	115,0		Rd110x1/4		-0802	881,20
100	406,0	120,0	130,0		Rd130x1/4		-1002	1567,15

 in Kombination mit FeSiVe und/oder Vakuumventil auf Anfrage  
 Rd: Rundgewinde

 in combination with safety and/or vacuum valve on inquiry  
 Rd: round thread

**RLV-Armatur  
mit Umschaltventil**
**cleaning-air valve  
combination  
with switching valve**

**Art.-Nr. 94170-**

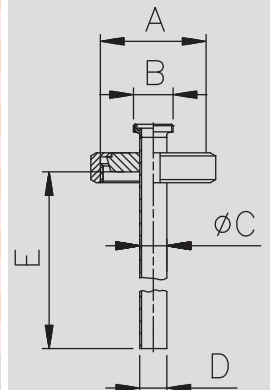
AISI 304/304L-1.4301/1.4307

AISI 316L-1.4404

DN	A	B	C	D	E	Gew.	Art.-Nr.		Preis	
							poliert	EUR	poliert	EUR
65/40	65	40	28,0	G1"			-0651040	122,30	-0653040	(+)
65/50	65	50	28,0	G1"			-0651050	138,95	-0653050	(+)
100/50	100	50	52,0	G2"			-1001050	179,50	-1003050	(+)
100/65	100	65	52,0	G2"			-1001065	188,40	-1003065	(+)

 A, B = DN - G: Rohrgewinde ISO 228-1- Aussengewinde  
 Maß E gemäß Angabe

 A, B = DN - G: outside pipe thread ISO 228-1  
 please indicate dimension E

**Anschlussvorrichtung  
für Sprühkopf  
mit Gewinde**
**connection facility for  
spray ball with thread**

**Art.-Nr. 94180-**

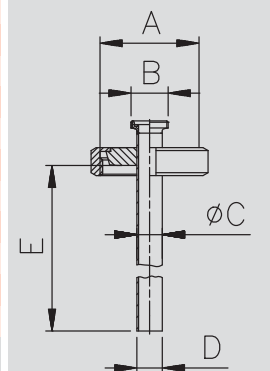
AISI 304/304L-1.4301/1.4307

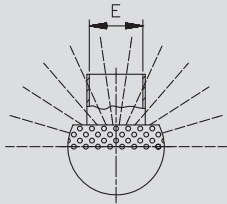
AISI 316L-1.4404

DN	A	B	C	D	E	Gew.	Art.-Nr.		Preis	
							poliert	EUR	poliert	EUR
65/40	65	40	28,0				-0651040	101,65	-0653040	(+)
65/50	65	50	28,0				-0651050	118,35	-0653050	(+)
100/50	100	50	52,0				-1001050	149,85	-1003050	(+)
100/65	100	65	52,0				-1001065	158,55	-1003065	(+)

 A, B = DN - Maß E gemäß Angabe  
 (+) Preis auf Anfrage

 A, B = DN - please indicate dimension E  
 (+) price on inquiry

**Anschlussvorrichtung  
für Sprühkopf  
mit Splint**
**connection facility for  
spray ball with cotter**


**9.16 Sprühkopf 180°**
**9.16 spray ball 180°**
**Sprühkopf 180°  
Lochung oben  
- Innengewinde**
**spray ball 180°  
perforation above  
- inside thread**

**Art.-Nr. 9440-**

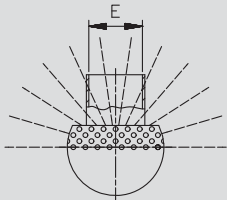
DN	A mm	B m³/h	C m³/h	D m	E mm	Gew. kg
10	25,0	1,5		0,5-1,0	G1/8"	
15	30,0	2,1		1,0-1,5	G1/4"	
20	40,0	5,6	8,6	2,0-2,5	G1/2"	
25	64,0	8,7	12,8	2,5-3,0	G1"	
25	64,0	14,2	23,0	3,0-4,0	G1"	
32	64,0	9,8	15,6	2,5-3,5	G1"	
32	64,0	16,0	26,7	3,0-4,0	G1"	
40	64,0	9,6	14,8	2,5-3,5	G1"	
40	64,0	14,9	24,8	3,0-4,0	G1"	
50	90,0	19,5	30,6	4,0-4,5	G2"	
50	90,0	31,0	51,0	6,0	G2"	
50	90,0	36,1	60,0	10,0	G2"	

AISI 316Ti-1.4571

Art.-Nr. blank	Preis EUR
-00103	89,55
-00153	94,55
-00203	94,55
-00253	98,45
-10253	124,35
-00323	125,35
-10323	157,15
-00403	131,30
-10403	163,05
-00503	198,95
-10503	253,65
-20503	333,25

 A: Kugeldurchmesser  
 B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar  
 D: Spritzkreisdurchmesser [m]

 A: ball diameter  
 B/C: mass flow rate m³/h for min.1bar / max.2,5 bar  
 D: spraying circle [m]

**Sprühkopf 180°  
Lochung oben  
- Splint**
**spray ball 180°  
perforation above  
- cotter**

**Art.-Nr. 9441-**

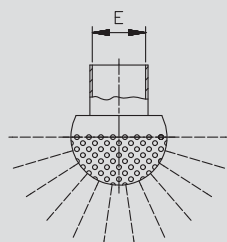
DN	A mm	B m³/h	C m³/h	D m	E mm	Gew. kg
10	25,0	1,5		0,5-1,0	12,2	
15	30,0	2,1		1,0-1,5	18,2	
20	40,0	5,6	8,6	2,0-2,5	22,2	
25	64,0	8,7	12,8	2,5-3,0	28,2	
25	64,0	14,2	23,0	3,0-4,0	28,2	
32	64,0	9,8	15,6	2,5-3,5	34,3	
32	64,0	16,0	26,7	3,0-4,0	34,3	
40	64,0	9,6	14,8	2,5-3,5	40,3	
40	64,0	14,9	24,8	3,0-4,0	40,3	
50	90,0	19,5	30,6	4,0-4,5	52,3	
50	90,0	31,0	51,0	6,0	52,3	
50	90,0	36,1	60,0	10,0	52,3	

AISI 316Ti-1.4571

Art.-Nr. blank	Preis EUR
-00103	89,55
-00153	94,55
-00203	94,55
-00253	98,45
-10253	124,35
-00323	125,35
-10323	157,15
-00403	131,30
-10403	163,05
-00503	198,95
-10503	253,65
-20503	333,25

 A: Kugeldurchmesser  
 B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar  
 D: Spritzkreisdurchmesser [m]

 A: ball diameter  
 B/C: mass flow rate m³/h for min.1bar / max.2,5 bar  
 D: spraying circle [m]

**Sprühkopf 180°  
Lochung unten  
- Innengewinde**
**spray ball 180°  
perforation below  
- inside thread**

**Art.-Nr. 9442-**

DN	A mm	B m³/h	C m³/h	D m	E mm	Gew. kg
10	25,0	1,1		0,5-1,0	G1/8"	
15	30,0	2,5		1,0-1,5	G1/4"	
20	40,0	6,3	9,8	2,0-2,5	G1/2"	
25	64,0	7,0	10,9	2,0-3,0	G1"	
25	64,0	12,4	20,0	3,0-4,0	G1"	
32	64,0	7,8	12,5	2,5-3,5	G1"	
32	64,0	13,7	22,0	3,0-4,0	G1"	
40	64,0	10,9	16,6	2,5-3,5	G1"	
40	64,0	14,0	22,2	3,0-4,0	G1"	
50	90,0	17,0	28,0	4,0-4,5	G2"	
50	90,0	30,7	49,7	6,0	G2"	

AISI 316Ti-1.4571

Art.-Nr. blank	Preis EUR
-00103	89,55
-00153	94,55
-00203	94,55
-00253	98,45
-10253	124,35
-00323	125,35
-10323	157,15
-00403	131,30
-10403	163,05
-00503	198,95
-10503	253,65

 A: Kugeldurchmesser  
 B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar  
 D: Spritzkreisdurchmesser [m]

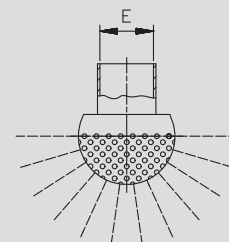
 A: ball diameter  
 B/C: mass flow rate m³/h for min.1bar / max.2,5 bar  
 D: spraying circle [m]

**9.17 Sprühkopf 180° unten, Sprühkopf 270° oben**
**9.17 spray ball 180° below, spray ball 270° above**
**Art.-Nr. 9443-**

DN	A	B	C	D	E	Gew.
mm	m³/h	m³/h	m	mm	kg	
10	25,0	1,1	0,5-1,0	12,2		
15	30,0	2,5	1,0-1,5	18,2		
20	40,0	6,3	2,0-2,5	22,2		
25	64,0	7,0	10,9	2,0-3,0	28,2	
25	64,0	12,4	20,0	3,0-4,0	28,2	
32	64,0	7,8	12,5	2,5-3,5	34,3	
32	64,0	13,7	22,0	3,0-4,0	34,3	
40	64,0	10,9	16,6	2,5-3,5	40,3	
40	64,0	14,0	22,2	3,0-4,0	40,3	
50	90,0	17,0	28,0	4,0-4,5	52,3	
50	90,0	30,7	49,7	6,0	52,3	

## AISI 316Ti-1.4571

Art.-Nr.	Preis
blank	EUR
-00103	89,55
-00153	94,55
-00203	94,55
-00253	98,45
-10253	124,35
-00323	125,35
-10323	157,15
-00403	131,30
-10403	163,05
-00503	198,95
-10503	253,65

**Sprühkopf 180°  
Lochung unten  
- Splint**
**spray ball 180°  
perforation below  
- cotter**


A: Kugeldurchmesser

B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar

D: Spritzkreisdurchmesser [m]

A: ball diameter

B/C: mass flow rate m³/h for min.1bar / max.2,5 bar

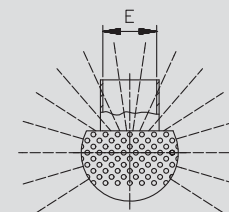
D: spraying circle [m]

**Art.-Nr. 9444-**

DN	A	B	C	D	E	Gew.
mm	m³/h	m³/h	m	mm	kg	
20	40,0	7,5	11,8	2,0-2,5	G1/2"	
25	64,0	10,0	15,8	2,0-3,0	G1"	
25	64,0	16,0	26,2	3,0-4,0	G1"	
32	64,0	11,4	18,6	2,5-3,5	G1"	
32	64,0	20,0	32,6	3,0-4,0	G1"	
40	64,0	10,4	16,2	2,5-3,5	G1"	
40	64,0	18,0	30,0	3,0-4,0	G1"	
50	90,0	27,7	45,0	4,0-4,5	G2"	
50	90,0	45,0	74,3	6,0	G2"	

## AISI 316Ti-1.4571

Art.-Nr.	Preis
blank	EUR
-00203	96,55
-00253	97,50
-10253	124,35
-00323	133,30
-10323	164,10
-00403	139,30
-10403	172,10
-00503	212,90
-10503	255,65

**Sprühkopf 270°  
Lochung oben  
- Innengewinde**
**spray ball 270°  
perforation above  
- inside thread**


A: Kugeldurchmesser

B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar

D: Spritzkreisdurchmesser [m]

A: ball diameter

B/C: mass flow rate m³/h for min.1bar / max.2,5 bar

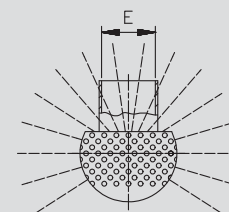
D: spraying circle [m]

**Art.-Nr. 9445-**

DN	A	B	C	D	E	Gew.
mm	m³/h	m³/h	m	mm	kg	
20	40,0	7,5	11,8	2,0-2,5	22,2	
25	64,0	10,0	15,8	2,0-3,0	28,2	
25	64,0	16,0	26,2	3,0-4,0	28,2	
32	64,0	11,4	18,6	2,5-3,5	34,3	
32	64,0	20,0	32,6	3,0-4,0	34,3	
40	64,0	10,4	16,2	2,5-3,5	40,3	
40	64,0	18,0	30,0	3,0-4,0	40,3	
50	90,0	27,7	45,0	4,0-4,5	52,3	
50	90,0	45,0	74,3	6,0	52,3	

## AISI 316Ti-1.4571

Art.-Nr.	Preis
blank	EUR
-00203	96,55
-00253	97,50
-10253	124,35
-00323	133,30
-10323	164,10
-00403	139,30
-10403	172,10
-00503	212,90
-10503	255,65

**Sprühkopf 270°  
Lochung oben  
- Splint**
**spray ball 270°  
perforation above  
- cotter**


A: Kugeldurchmesser

B/C: Durchsatz m³/h bei min. 1bar / max. 2,5 bar

D: Spritzkreisdurchmesser [m]

A: ball diameter

B/C: mass flow rate m³/h for min.1bar / max.2,5 bar

D: spraying circle [m]







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