

PERFECT RINSING AND REMOVAL OF LIGHT SOILING



Cleaning efficiency class 2


The typical task profile of the rotating nozzles in cleaning efficiency class 2 includes rinsing tasks and the removal of light soiling, particularly the kind that frequently occurs in the food and beverage industry as well as in the chemical and pharmaceutical industry.

The Lechler products in this class are free-spinning and made from particularly high-grade materials such as stainless steel, PVDF, PEEK and PTFE. This ensures the use of a wide range of different cleaning agents.



	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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 **Operating principles**
Free-spinning

 **Flow rates at 2 bar**
8 to 225 l/min

 **Recommended operating pressures**
2 to 3 bar

 **Max. temperatures**
50 to 200 °C



Rotating cleaning nozzle »PicoWhirly« Series 500.234

Series 500.234

The PicoWhirly works with rotating solid jets and is also suitable for cleaning at very high temperatures. This rotating cleaning nozzle with kolsterised slide bearing is made entirely from stainless steel and can also be used in very small spaces, thanks to its extremely compact construction.



	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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Material
316L SS



Max. temperature
200 °C



Recommended operating pressure
3 bar



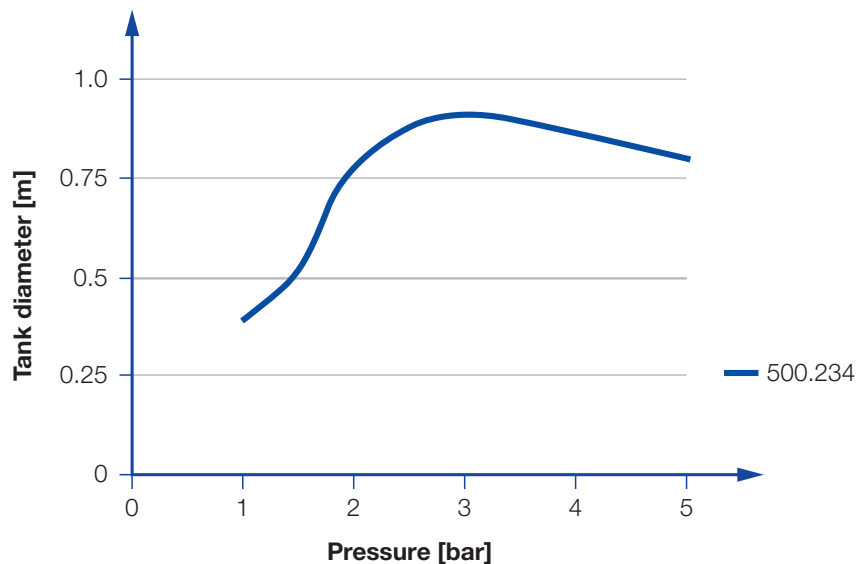
Installation
Operation in every direction is possible



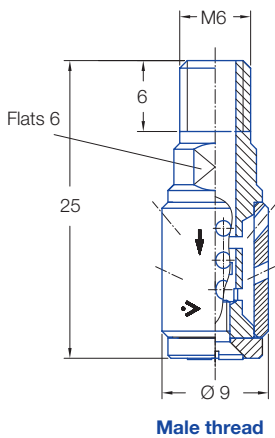
Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh





Bearing
Kolsterised slide bearing



Overview of the tank diameter, depending upon the pressure of series 500.234



Spray angle 	Ordering number Type	E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
			p [bar] (p _{max} = 5 bar)				
			1	2	3	at 40 psi [US gal/min]	
300° 	500.234.G9.00	1.8	5.7	8.0	9.8	2.5	0.9

E = narrowest free cross-section

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure has negative effects on the cleaning result and wear.



Rotating cleaning nozzle »MicroWhirly« Series 566

Series 566

The MicroWhirly, with effective flat fan nozzles, is licensed for contact with food. Thanks to the robust slide bearing made from PEEK, the MicroWhirly has a particularly long service life. The MicroWhirly is alternatively available with an internal or external thread and in an ATEX version, which allows it to be adapted to a wide range of uses.



Function video
Scan the QR-code or go to:
www.lechler.com/microwhirly



Max. tank diameter [m]

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---



Materials
316L SS, PEEK,
PEEK ESD (ATEX
version only)



Max. temperature
130 °C
90 °C ATEX Version



Recommended operating pressure
2 bar



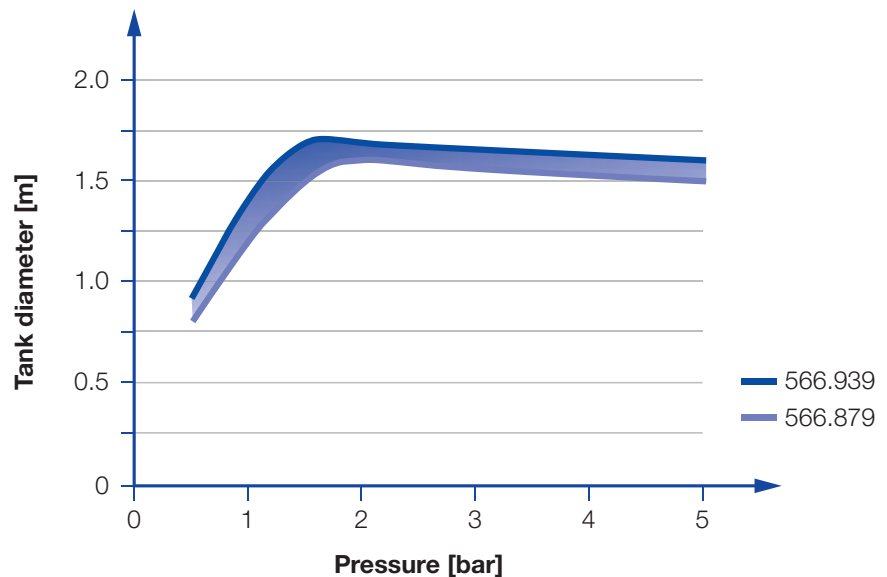
Installation
Operation in every
direction is possible



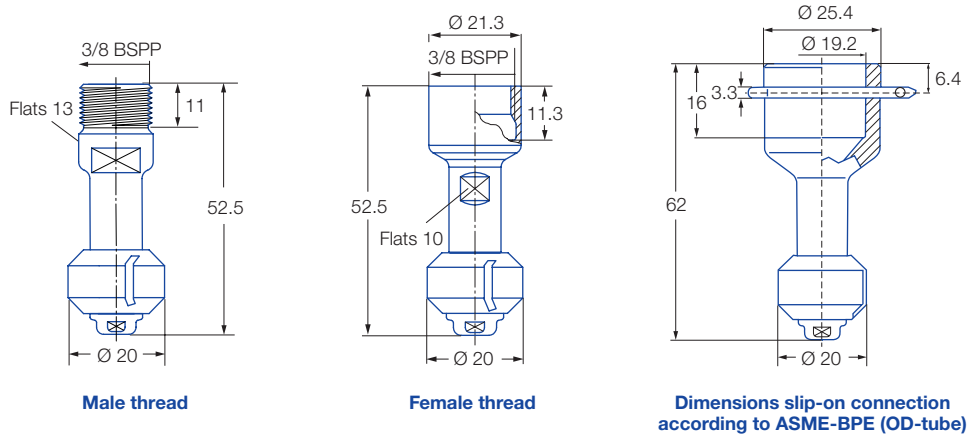
Filtration
Line strainer with
a mesh size of
0.3 mm/50 mesh



Bearing
Slide bearing made of
PEEK



Overview of the tank diameter, depending upon the pressure of series 566



Spray angle	Ordering number				E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
	Type	Connection				p [bar] (p _{max} = 6 bar)				
		3/8 BSPP* male	3/8 BSPP* female	3/4" Slip-on		1	2	3	at 40 psi [US gal/min]	
180°	566.873.1Y	AE	AF	TF	1	12	15	18	5	1.6
	566.933.1Y	AE	AF	TF	2.4	15	21	26	7	1.7
180°	566.874.1Y	AE	AF	TF	1	12	15	18	5	1.6
	566.934.1Y	AE	AF	TF	2.4	15	21	26	7	1.7
360°	566.879.1Y	AE	AF	TF	1	12	15	18	5	1.6
	566.939.1Y	AE	AF	TF	2.4	15	21	26	7	1.7

E = narrowest free cross-section · * NPT and weld-on version on request

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure has negative effects on the cleaning result and wear.

Slip-on information

- R-clip made of 316L SS is included (Ordering no.: 095.022.1Y.50.94.E).
- Depending on diameter of the adapter the flow rate can increase due to leakage between connecting pipe and rotating cleaning nozzle.

Example of ordering with ATEX approval. No FDA and (EC) 1935/2004 conformity.

Unit group/category/zones:

⊕ II 1G Ex h IIB T6...T3 Ga

⊕ II 1D Ex h IIIC T85 °C...T150 °C Da

Example Type + Connection = Ordering no.
of ordering: 566.873.1Y.XX.EX + AE = 566.873.1Y.AE.EX

Example of ordering with FDA and (EC) 1935/2004 conformity.

All Materials are suitable for contact with food.

Example Type + Connection = Ordering no.
of ordering: 566.873.1Y.XX + AE = 566.873.1Y.AE

ATTENTION: For the **ATEX** version of the slip-on connection the code for the connection changes. For a 566.873.1Y.**TF.07** with ATEX the order number changes to 566.873.1Y.**TF.EX**



Rotating cleaning nozzle »MiniWhirly« Series 500.186

Series 500.186

The MiniWhirly made from POM is the economical entry-level model in the area of tank cleaning. The rotating nozzle has effective flat fan nozzles and was specifically designed for applications in barrel and canister cleaning.



	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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Materials

POM,
316 SS



Max. temperature

50 °C



Recommended operating pressure

2 bar



Installation

Vertically facing downward



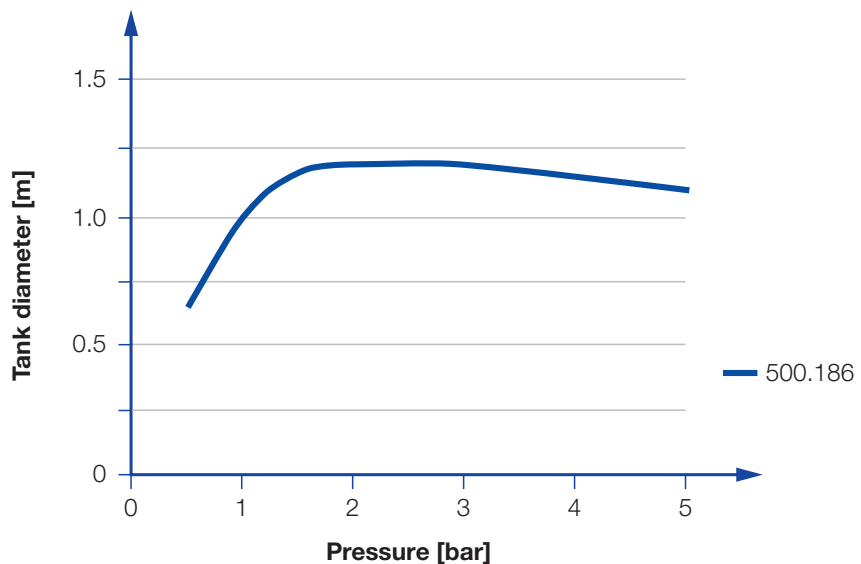
Filtration

Line strainer with a mesh size of 0.3 mm/50 mesh

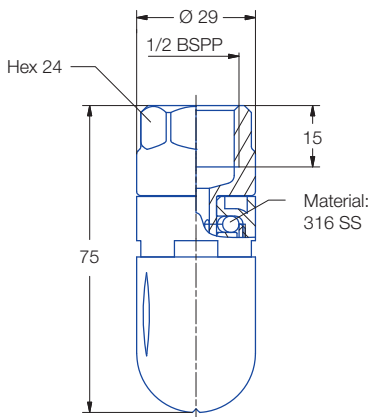


Bearing



Ball bearing made of stainless steel



Overview of the tank diameter, depending upon the pressure of series 500.186



Female thread

Spray angle 	Ordering number Type	E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
			p [bar] (p _{max} = 5 bar)				
			1	2	3	at 40 psi [US gal/min]	
300° 	500.186.56.AH	1.9	13	18	22	6	1.3

E = narrowest free cross-section

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure has negative effects on the cleaning result and wear.



Rotating cleaning nozzle »PVDF MicroWhirly« Series 500.191

Series 500.191

The PVDF MicroWhirly is made entirely from PVDF and designed to work in a corrosive environment. It is also suitable for contact with food and the application of foam, and can be used for cleaning equipment – all for a very good price-performance ratio.



Max. tank diameter [m]

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9



Material
PVDF



Max. temperature
90 °C



Recommended operating pressure
2 bar



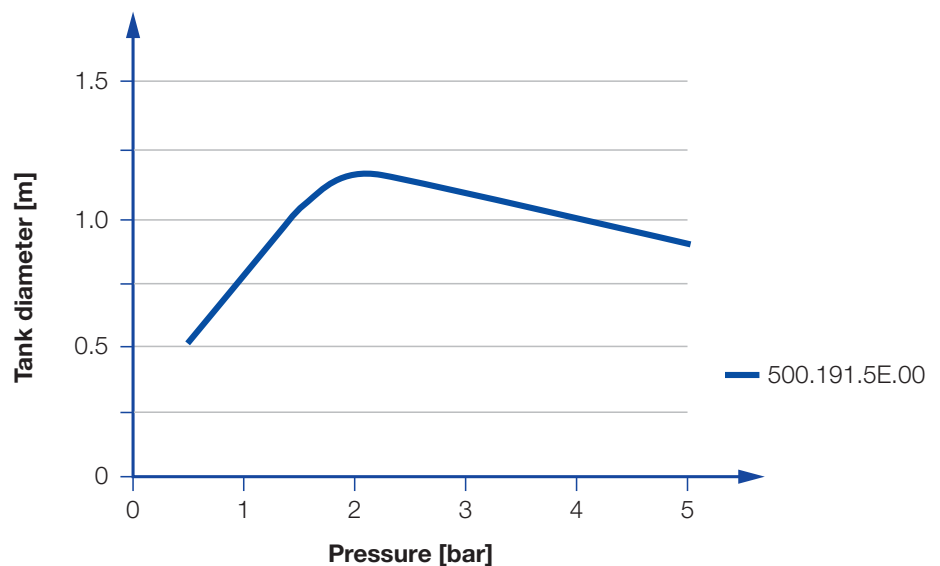
Installation
Operation in every direction is possible



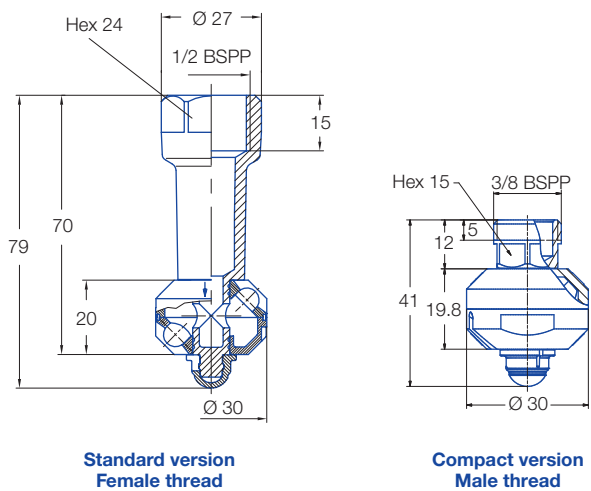
Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh








Bearing
Slide bearing made of PVDF



Overview of the tank diameter, depending upon the pressure of series 500.191






Standard version

Spray angle 	Ordering number Type	E Ø [mm]	Connection BSPP female	V̇ [l/min]				Max. tank diameter [m]
				p [bar] (p _{max} = 5 bar)				
				1	2	3	at 40 psi [US gal/min]	
180° 	500.191.5E.02	2.2	1/2"	9	13	16	4	0.8
180° 	500.191.5E.01	2.2	1/2"	9	13	16	4	0.8
270° 	500.191.5E.31	2.2	1/2"	14	20	25	6	1.1
360° 	500.191.5E.00	2.2	1/2"	14	20	25	6	1.1

E = narrowest free cross-section

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Compact version

Spray angle 	Ordering number Type	E Ø [mm]	Connection BSPP male	V̇ [l/min]				Max. tank diameter [m]
				p [bar] (p _{max} = 5 bar)				
				1	2	3	at 40 psi [US gal/min]	
180° 	500.191.5E.21	2.2	3/8"	9	13	16	4	0.8
360° 	500.191.5E.22	2.2	3/8"	14	20	25	6	1.1

E = narrowest free cross-section

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- The PVDF MicroWhirly is not suitable for operation with compressed air or any other gas. Operation above the recommended operating pressure has negative effects on the cleaning result and wear.

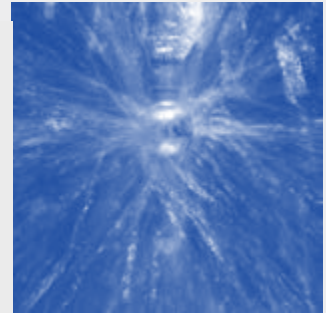


Rotating cleaning nozzle »NanoSpinner 2« Series 5M1

NEW

Series 5M1

The NanoSpinner 2 convinces by its compact design which allows cleaning in confined spaces. In addition, the rotating cleaning nozzle is characterized by its popular design and a double ball bearing. It is made entirely of stainless steel and is thus also suitable for high ambient temperatures.



Function video

Scan the QR-Code or go to:

www.lechler.com/de-en/medialibrary

	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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Materials
Stainless steel 316L



Max. temperature
250 °C



Recommended operating pressure
2 bar



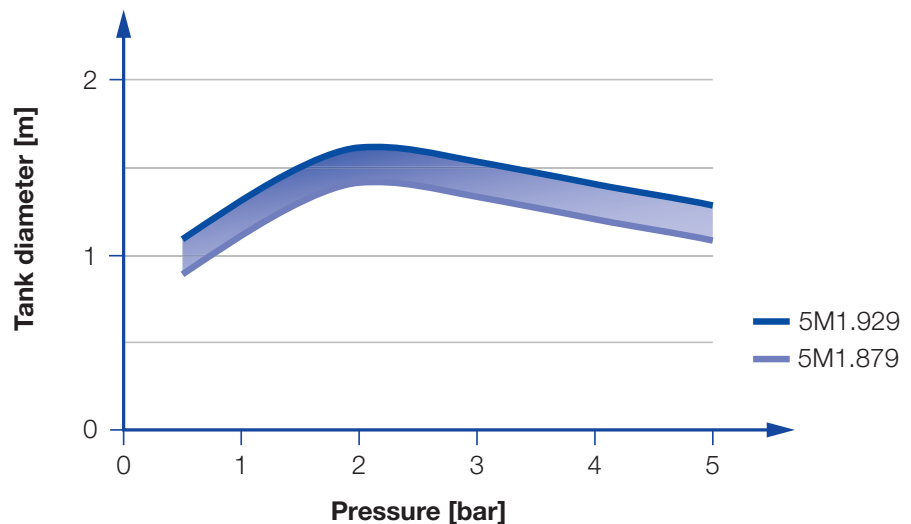
Installation
Operation in every direction is possible



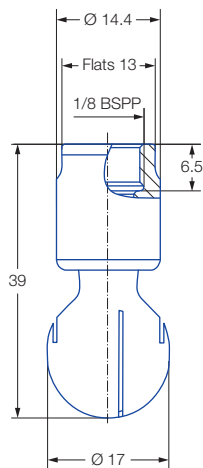
Filtration
Line strainer with a mesh size of 0.1 mm/170 Mesh





Bearing
Double ball bearing made of stainless steel 316L



Overview of the tank diameter, depending upon the pressure of series 5M1



Female thread

Spray angle 	Ordering number Type	E Ø [mm]	V [l/min]				Max. tank diameter [m]
			p [bar] (p _{max} = 7 bar)				
			1	2	3	at 40 psi [US gal./ min]	
 360°	5M1.879.1Y.AB	0,4	11	15	18	5	1,4
	5M1.929.1Y.AB	0,5	14	20	25	6	1,6

E = narrowest free cross-section
NPT, slip-on connection and weld-on versions on request




The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure means higher wear and smaller droplets. This might have adverse effects on the cleaning result.

Example of ordering with ATEX approval. FDA and (EG) 1935/2004 conform.



Unit group / category / zones:
 Ⓢ II 1G Ex h IIB T6...T2 Ga
 Ⓢ II 1D Ex h IIIC T85 °C...T250 °C Da

Example of ordering: Type/Ordering no. 5M1.879.1Y.AB.EX

Example of ordering with FDA and (EC) 1935/2004 conformity.

All Materials are suitable for contact with food.

Example of ordering: Type + Connection = Ordering no.
 5M1.879.1Y + AB = 5M1.879.1Y.AB

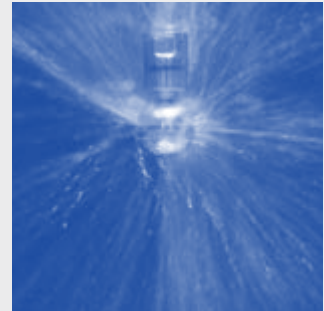


Rotating cleaning nozzle »MicroSpinner 2« Series 5M2

NEW

Series 5M2

The MicroSpinner 2 convinces by its compact design which allows cleaning in confined spaces. The MicroSpinner 2 is made entirely from stainless steel and designed for use also at high temperatures. It is available with many different flow rates and spray angles.



Function video

Scan the QR-Code or go to:

www.lechler.com/de-en/medialibrary



Max. tank diameter [m]

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9



Materials
Stainless steel 316L



Max. temperature
250 °C



Recommended operating pressure
2 bar



Installation
Operation in every direction is possible



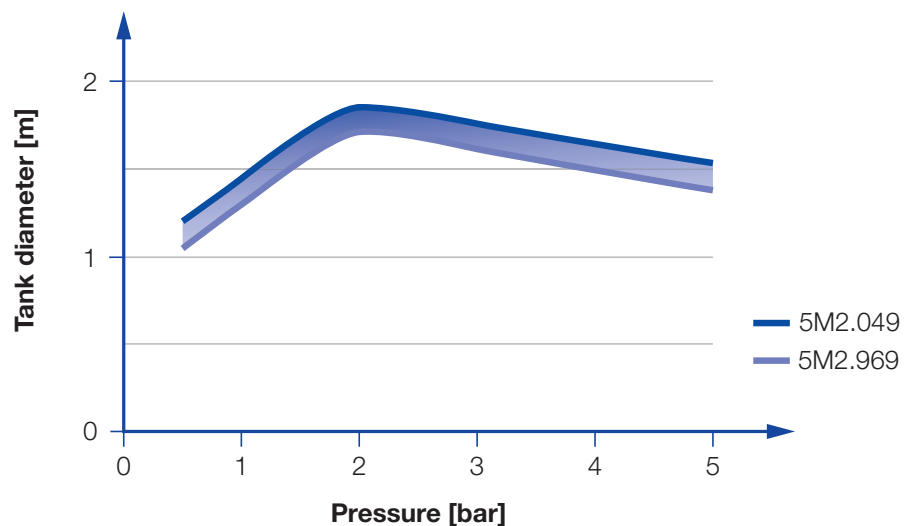
Filtration
Line strainer with a mesh size of 0.1 mm/170 Mesh



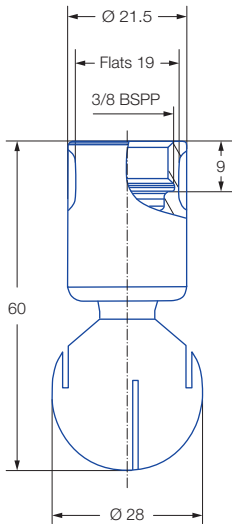
Bearing
Double ball bearing made of stainless steel 316L



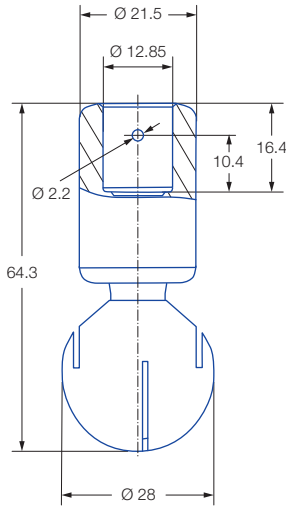
Adapter
3/8 BSPP is compatible with HygienicFit



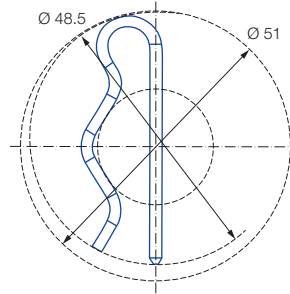
Overview of the tank diameter, depending upon the pressure of series 5M2







Female thread



1/2" Slip-on connection
Dimensions slip-on connection
according to ASME-BPE (OD-tube)



Dimensions
slip-on connection
top view

Spray angle 	Ordering number			E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
	Type	Connection			p [bar] (p _{max} = 7 bar)				
		3/8 BSPP	1/2" Slip-on		1	2	3	at 40 psi [US gal./ min]	
60° 	5M2.952.1Y	AF	TF05	1,5	16	23	28	7	-
	5M2.042.1Y	AF	TF05	3,0	28	40	49	12	-
180° 	5M2.004.1Y	AF	TF05	0,9	22	32	39	10	1,8
360° 	5M2.969.1Y	AF	TF05	0,8	18	25	31	8	1,7
	5M2.049.1Y	AF	TF05	0,9	28	39	48	12	1,8

E = narrowest free cross-section
NPT, slip-on connection and weld-on versions on request

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure means higher wear and smaller droplets. This might have adverse effects on the cleaning result.

Slip-on information

- Split pin made of 316L SS is included. (Ordering no. 05M.230.1Y.00.00.0).
- Depending on diameter of the adapter the flow rate can increase due to leakage between connecting pipe and rotating cleaning nozzle.
- Minimum insertion diameter (with mounted split pin) is 48,5 mm.

Example of ordering with ATEX approval.
FDA and (EG) 1935/2004 conform.
Only material 316L SS available with ATEX approval.

Unit group / category / zones:

- ⊕ II 1G Ex h IIB T6...T2 Ga
- ⊕ II 1D Ex h IIC T85 °C...T250 °C Da



Example of ordering: Type + Mat. no. + Connection = Ordering no.
5M2.952 + 1Y + AF = 5M2.952.1Y.AF.EX

Example of ordering with FDA and (EC) 1935/2004 conformity.

All Materials are suitable for contact with food.



Example of ordering: Type + Connection = Ordering no.
5M2.952.1Y + AF = 5M2.952.1Y.AF

Attention: for the ATEX version of the slip-connection the code for the connection changes. Ordering example for connection: 5M2.042.1Y.T1.EX

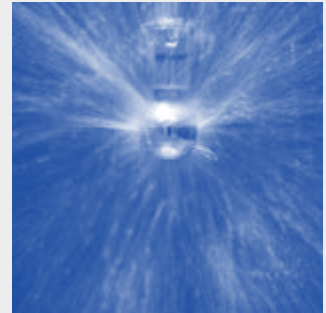


Rotating cleaning nozzle »MiniSpinner 2« Series 5M3

NEW

Series 5M3

The MiniSpinner 2 convinces with its popular design and effective cleaning. The MiniSpinner 2 is made entirely from stainless steel and designed for use also at high temperatures. It is available with many different flow rates and spray angles.



Function video

Scan the QR-Code or go to:

www.lechler.com/de-en/medialibrary



Max. tank diameter [m]



Materials

Stainless steel 316L



Max. temperature

250 °C



Recommended operating pressure

2 bar



Installation

Operation in every direction is possible



Filtration

Line strainer with a mesh size of 0.1 mm/170 Mesh



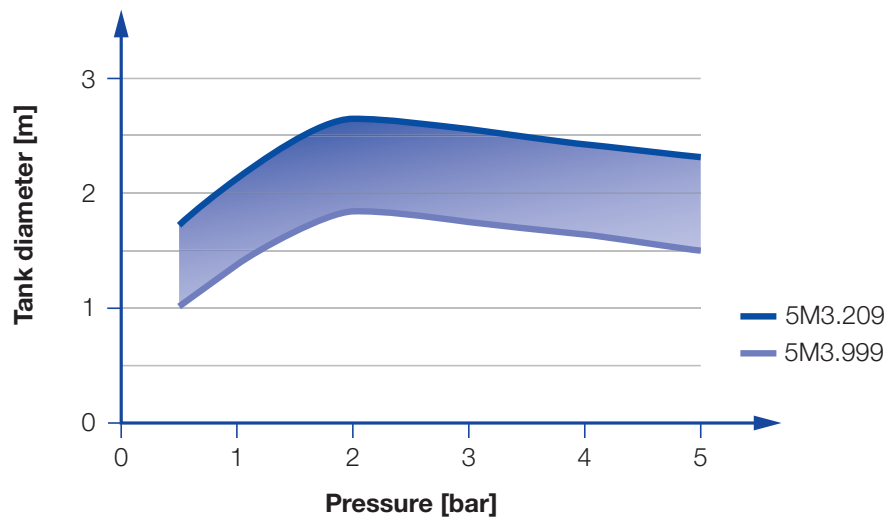
Bearing

Double ball bearing made of stainless steel 316L

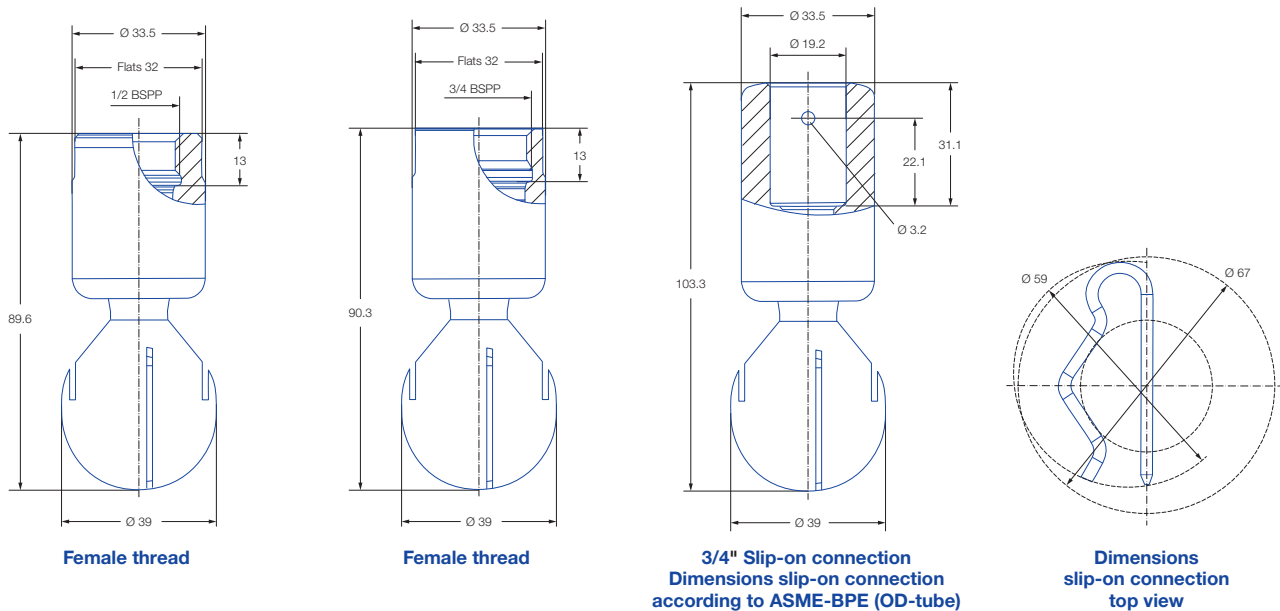







Adapter

1/2 BSPP and 3/4 BSPP are compatible with HygienicFit



Overview of the tank diameter, depending upon the pressure of series 5M3



Spray angle 	Ordering number				E Ø [mm]	V̇ [l/min]					Max. tank diameter [m]
	Type	Connection				p [bar] (p _{max} = 7 bar)					
		1/2 BSPP	3/4 BSPP	3/4" Slip-on		1	2	3	at 40 psi [US gal./min]		
60° 	5M3.122.1Y	AH	-	TF07	2,6	45	63	77	20	-	
180° 	5M3.133.1Y	-	AL	TF07	1,2	47	67	82	21	2,6	
180° 	5M3.134.1Y	-	AL	TF07	1,3	47	67	82	21	2,6	
360° 	5M3.999.1Y	-	AL	TF07	0,4	21	30	37	9	1,8	
	5M3.089.1Y	-	AL	TF07	0,7	35	49	60	15	2,1	
	5M3.139.1Y	-	AL	TF07	0,8	49	69	85	21	2,3	
	5M3.209.1Y	-	AL	TF07	1,5	71	100	122	31	2,6	

E = narrowest free cross-section
NPT, slip-on connection and weld-on versions on request

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.



Information on operation




- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure means higher wear and smaller droplets. This might have adverse effects on the cleaning result.

Slip-on information

- Split pin made of 316L SS is included. (Ordering no.: 05M.330.1Y.00.00.0).
- Depending on diameter of the adapter the flow rate can increase due to leakage between connecting pipe and rotating cleaning nozzle.
- Minimum insertion diameter (with mounted split pin) is 59 mm.

Example of ordering with ATEX approval. FDA and (EG) 1935/2004 conform.
Only material 316L SS available with ATEX approval.



Unit group / category / zones:



Example of ordering: Type + Mat. no. + Connection = Ordering no.
 5M3.122 + 1Y + AH = 5M3.122.1Y.AH.EX

Example of ordering with FDA and (EC) 1935/2004 conformity.

All Materials are suitable for contact with food.

Example of ordering: Type + Connection = Ordering no.
 5M3.122.1Y + AH = 5M3.122.1Y.AH

Attention: for the ATEX version of the slip-connection the code for the connection changes. Ordering example for connection: 5M3.122.1Y.T2.EX

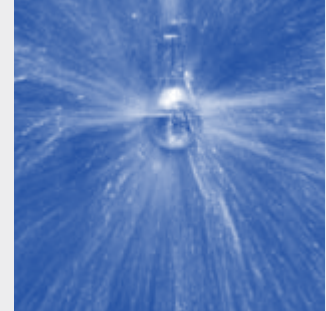


Rotating cleaning nozzle »MaxiSpinner 2« Series 5M4

NEW

Series 5M4

The newly developed MaxiSpinner 2 is similar to the Mini, Micro and NanoSpinner 2 series in many respects. As the largest product of this series, it also convinces with effective cleaning results and a reliable as well as durable bearing construction. The MaxiSpinner 2 is made entirely of stainless steel (316L) and is also designed for high ambient temperatures.



Function video

Scan the QR-Code or go to:

www.lechler.com/de-en/medialibrary



Max. tank diameter [m]

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9



Materials

Stainless steel 316L



Max. temperature

250 °C



Recommended operating pressure

2 bar



Installation

Operation in every direction is possible



Filtration

Line strainer with a mesh size of 0.1 mm/170 Mesh



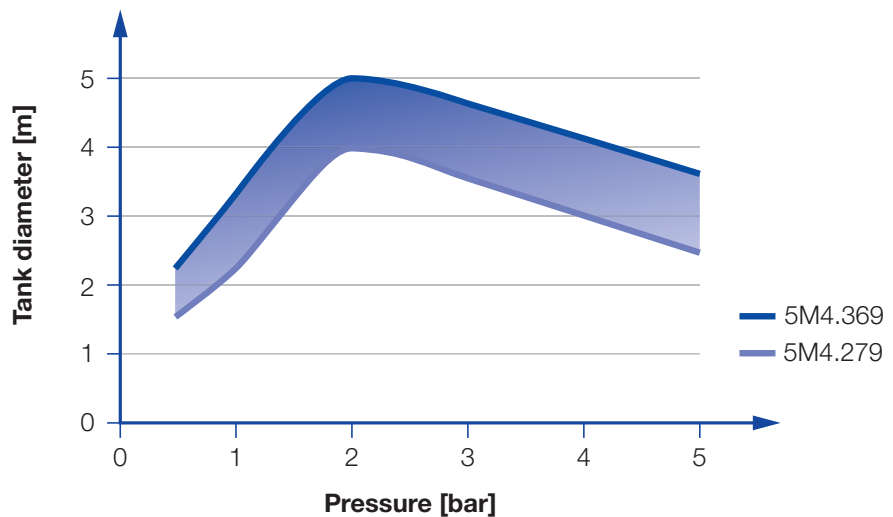
Bearing

Double ball bearing made of stainless steel 316L

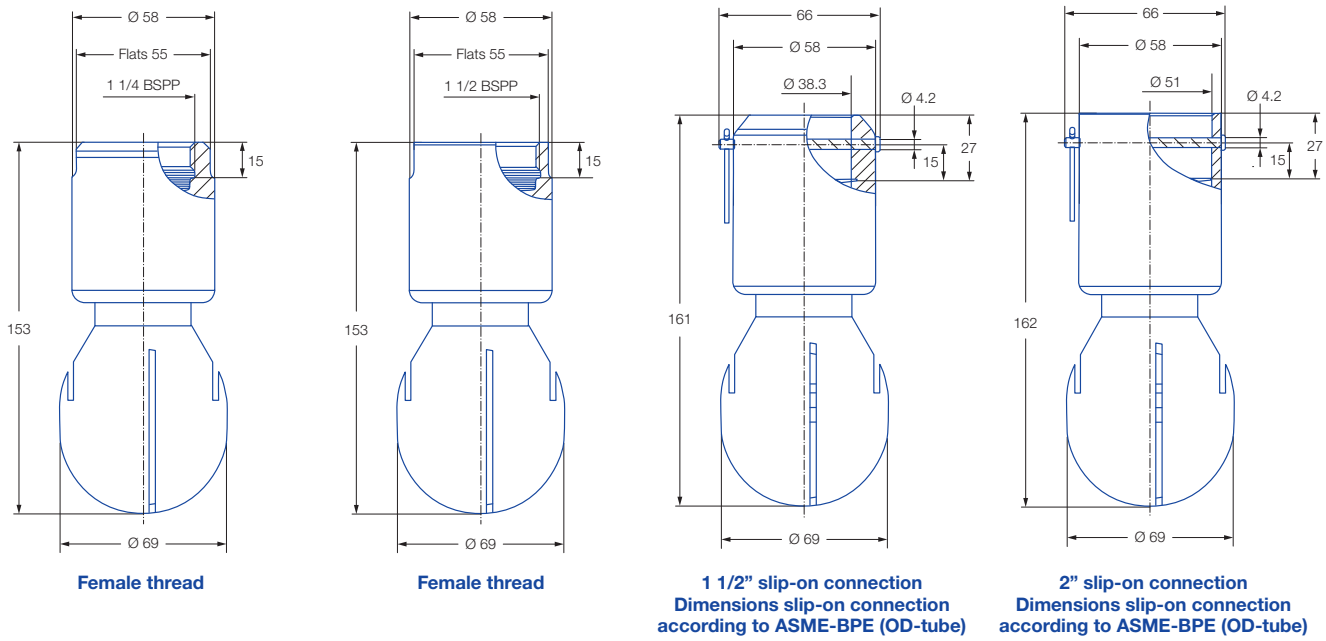


Adapter

1 1/4 BSPP and 1 1/2 BSPP are compatible with HygienicFit



Overview of the tank diameter, depending upon the pressure of series 5M4



Spray angle 	Ordering number					E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
	Type	Connection					p [bar] (p _{max} = 7 bar)*				
		1 1/4 BSPP	1 1/2 BSPP	1 1/2" Slip-on	2" Slip-on		1	2	3	at 40 psi [US gal./ min]	
180° 	5M4.253.1Y	AQ	AS	TF15	TF20	1.8	95	135	165	42	4.0
180° 	5M4.254.1Y	AQ	AS	TF15	TF20	2.1	95	135	165	42	4.0
270° 	5M4.365.1Y	AQ	AS	TF15	TF20	2.5	177	250	306	78	5.0
360° 	5M4.279.1Y	AQ	AS	TF15	TF20	1.7	107	150	184	46	4.0
	5M4.329.1Y	AQ	AS	TF15	TF20	2.0	141	200	245	62	4.5
	5M4.369.1Y	AQ	AS	TF15	TF20	2.3	177	250	306	78	5.0

E = narrowest free cross-section
 NPT and weld-on versions on request
 * Please note the maximum operating pressure of 4 bar for the 2" slip-on version (TF.20).

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure means higher wear and smaller droplets. This might have adverse effects on the cleaning result.

Slip-on information

- Bolt with head incl. pin made of stainless steel 316L included. (Ordering no. 05M.431.1Y.00.00.0)
- Depending on diameter of the adapter the flow rate can increase due to leakage between connecting pipe and rotating cleaning nozzle.
- Minimum insertion diameter (with mounted bolt) is the same as for the threaded variants 69 mm.

Example of ordering with ATEX approval. FDA and (EG) 1935/2004 conform. Only material 316L SS available with ATEX approval.

Unit group / category / zones:
 ☉ II 1G Ex h IIB T6...T2 Ga
 ☉ II 1D Ex h IIIC T85 °C...T250 °C Da

Example of Type + Mat. no. + Connection = Ordering no.
 ordering: 5M4.369 + 1Y + AQ = 5M4.369.1Y.AQ.EX

Example of ordering with FDA and (EC) 1935/2004 conformity.

All Materials are suitable for contact with food.

Example of Type + Connection = Ordering no.
 Ordering: 5M4.369.1Y + AQ = 5M4.369.1Y.AQ

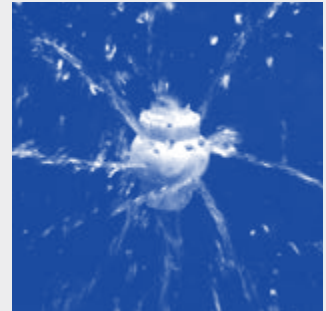
Attention: for the ATEX version of the 1 1/2" slip-connection and the 2" slip-connection the code for the connection changes. Ordering example for 1 1/2" connection: 5M4.369.1Y.T5.EX. Ordering example for 2" connection: 5M4.369.1Y.T6.EX.



Rotating cleaning nozzles »PTFE Whirly« Series 573/583

Series 573/583

The PTFE Whirly is of particular interest for applications in the chemical, pharmaceutical and food industries. It works with rotating solid jets and is suitable for use in corrosive environments. The slip-on connection has a 3-A certification and can be used in areas subject to particularly high hygiene requirements, such as contact with food.



Function video
Scan the QR-code or go to:
www.lechler.com/ptfewhirly

	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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Material
PTFE



Max. temperature
95 °C (versions for use with higher temperature (130 °C) on request)



Recommended operating pressure
2 bar



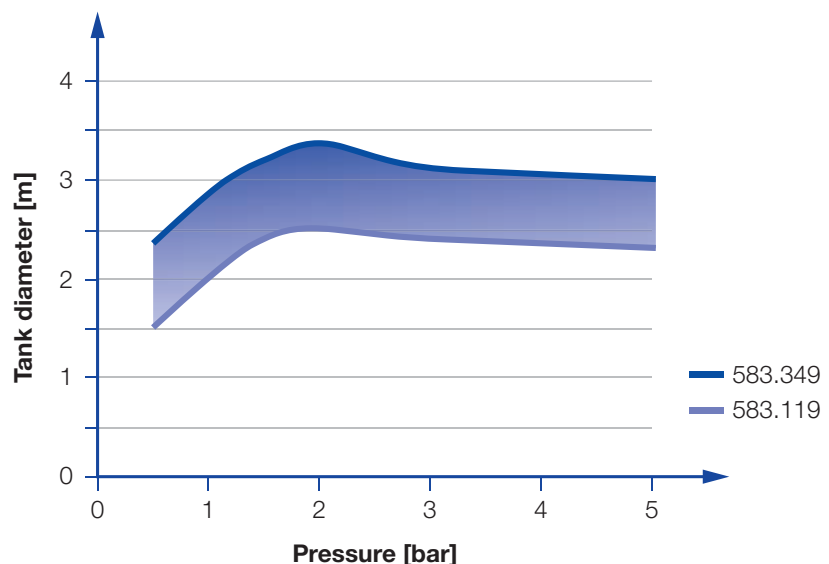
Installation
Operation in every direction is possible



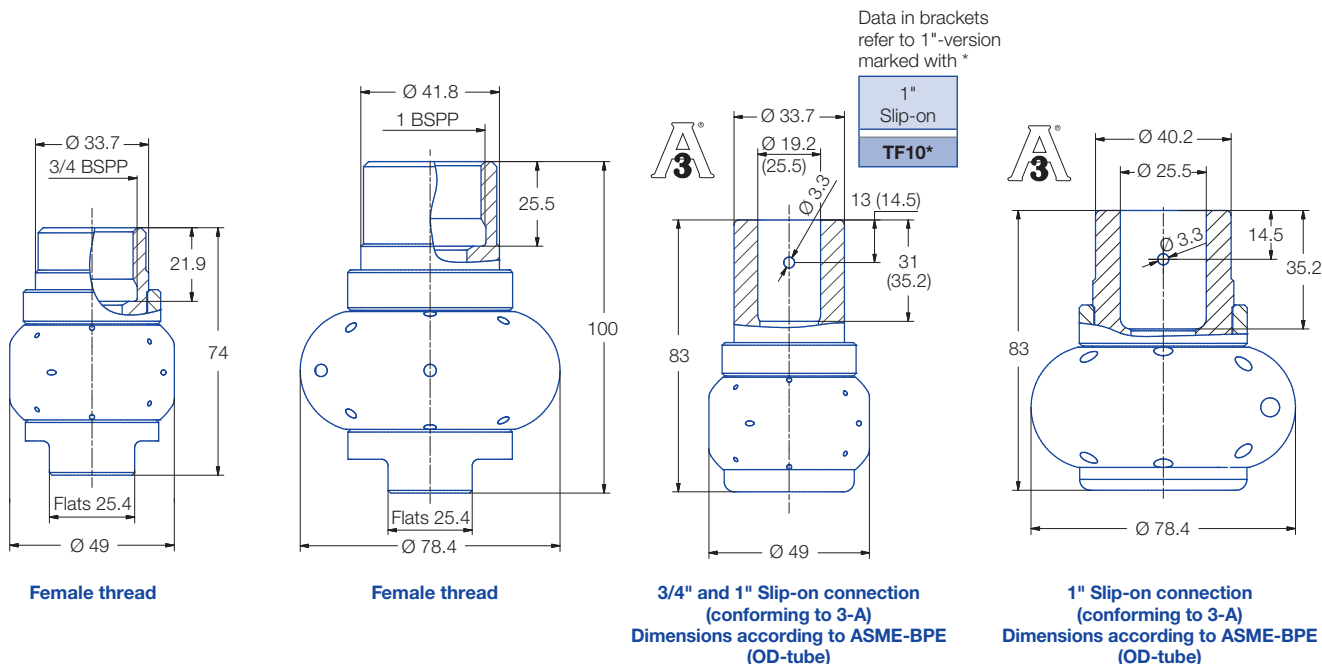
Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh



Bearing
Slide bearing made of PTFE



Overview of the tank diameter, depending upon the pressure of series 573/583



Spray angle	R-clip	Ordering no.				E \varnothing [mm]	\dot{V} [l/min]				Max. tank diameter [m]	
		Type	Connection				p [bar] ($p_{max} = 6$ bar)					
			3/4 BSPP	1 BSPP	3/4" Slip-on		1" Slip-on	1	2	3		at 40 psi [US gal/min]
270°	1)	583.116.55	AL	-	TF07	-	2.4	47	67	82	21	2.5
	2)	583.346.55	-	-	-	TF10	5.9	159	225	276	70	3.2
270°	1)	573.116.55	AL	-	TF07	-	2.4	47	67	82	21	2.5
360°	1)	583.119.55	AL	-	TF07	TF10*	1.8	41	58	71	18	2.4
	1)	583.209.55	AL	-	TF07	TF10*	3.5	71	100	122	31	2.5
	1)	583.269.55	AL	-	TF07	-	4.8	103	145	178	45	2.8
	2)	583.279.55	-	AN	-	TF10	3.7	106	150	184	47	3.0
	2)	583.349.55	-	AN	-	TF10	5.6	159	225	276	70	3.2

E = narrowest free cross-section · NPT on request
* See drawing 3 for details

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Information on operation

- Operation with compressed air only for short-term usage. Operation above the recommended operating pressure has negative effects on the cleaning result and wear.

Slip-on information

- R-clip made of 316L SS is included (Ordering no.: R-clip 1: 095.013.17.06.60, R-clip 2: 095.013.17.06.61).
- Depending on diameter of the adapter the flow rate can increase due to leakage between connecting pipe and rotating cleaning nozzle.

Example of ordering:	Type	+	Connection	=	Ordering no.
	583.119.55.	+	AL	=	583.119.55.AL

Retractable rotating cleaning nozzle »PopUp Whirly« Series 5P2/5P3

Series 5P2/5P3

The PopUp Whirly is designed for cleaning in confined spaces and for tanks or pipelines where conventional cleaning systems could affect the process. The free-spinning rotating nozzle can be installed flush with the wall. When a certain liquid pressure is applied, the rotating cleaning nozzle of the PopUp Whirly extends automatically and starts cleaning. The PopUp Whirly is also suitable for pipe cleaning and for applications that use foam. It is particularly interesting for applications in the food and beverage industry as well as in the chemical and pharmaceutical industry. The ATEX approval makes the PopUp Whirly suitable for use in explosive areas.



	Max. tank diameter [m]	0	1	2	3	4	5	6	7	8	9
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Materials
316L SS, 316Ti SS,
316 SS, FKM

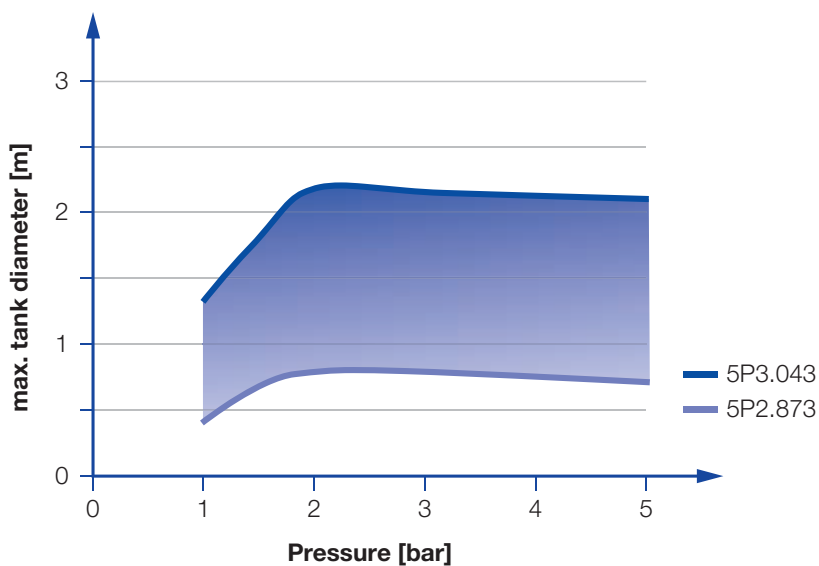
Max. temperature
140 °C

Recommended operating pressure
2 bar
5P2: opening pressure approx. 1.0 bar
closing pressure approx. 0.5 bar
5P3: opening pressure approx. 0.9 bar
closing pressure approx. 0.5 bar

Installation
Operation in every direction is possible

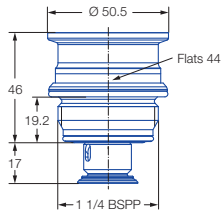
Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh

Bearing
Slide bearing

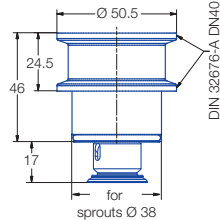


Overview of the tank diameter, depending upon the pressure of series 5P2/5P3

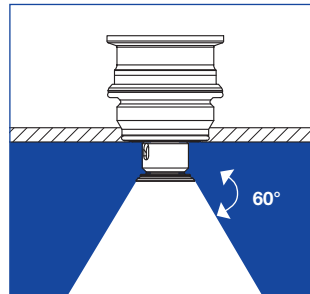
Series 5P2



Male thread



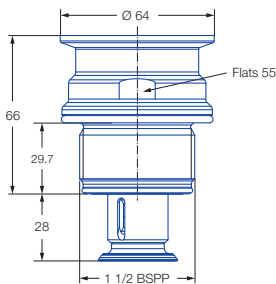
Tri-Clamp



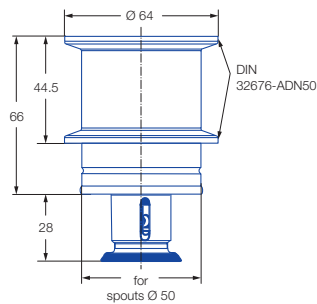
Spray angle	Ordering no.	Tank connection		E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
		1 1/4 BSPP	Tri-Clamp		p [bar] (p _{max} = 6 bar)				
					1	2	3	at 40 psi [US gal/min]	
	5P2.873.1Y.AP	○	-	2.5	10.6	15.0	18.4	5	0.8
	5P2.873.1Y.00	-	○	2.5	10.6	15.0	18.4	5	0.8
	5P2.923.1Y.AP	○	-	3.5	14.1	20.0	24.5	6	1.0
	5P2.923.1Y.00	-	○	3.5	14.1	20.0	24.5	6	1.0

The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

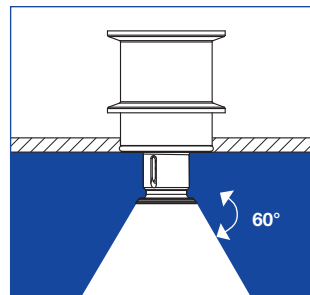
Series 5P3



Male thread



Tri-Clamp

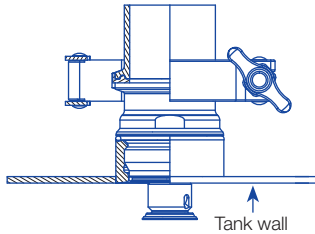


Spray angle	Ordering no.	Tank connection		E Ø [mm]	V̇ [l/min]				Max. tank diameter [m]
		1 1/2 BSPP	Tri-Clamp		p [bar] (p _{max} = 6 bar)				
					1	2	3	at 40 psi [US gal/min]	
	5P3.043.1Y.AR	○	-	3.3	28.3	40	49	12	2.2
	5P3.043.1Y.00	-	○	3.3	28.3	40	49	12	2.2

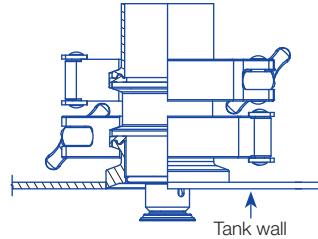
The maximum tank diameter shown above applies for the recommended operating pressure and is indicative only. The cleaning result is also affected by the type of soiling.

Nozzle installation

With thread



With Tri-Clamp

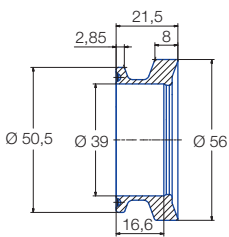


Information on operation

- The PopUp Whirly is not suitable for operation with compressed air or any other gas.
- Operation above the recommended operating pressure has negative effects on the cleaning result and wear.

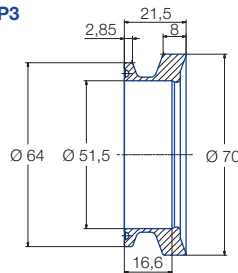
Weld-in flange for Tri-Clamp-Version

5P2



Ord.-no. 050.020.1Y.01.00

5P3



Ord.-no. 050.020.1Y.01.01

Information

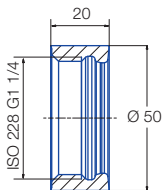
Gasket with a thickness of 2 mm must be used if the PopUp Whirly is installed with this weld-in flange.

Material

316L SS

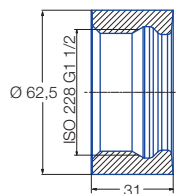
Weld-in socket for Thread-Version

5P2



Ord.-no. 050.020.1Y.AQ.00

5P3



Ord.-no. 050.020.1Y.AS.00

Information

The thread is hygienically sealed with 2 O-rings included in the scope of delivery.

Material

316L SS

Example of ordering with FDA and (EG) 1935/2004 conformity.

All Materials are suitable for contact with food.



Example of ordering: Type 5P2.873.1Y + Connection AP = Ordering no. 5P2.873.1Y.AP

Example of ordering with ATEX approval. FDA and (EG) 1935/2004 conform.

Only material 316L SS available with ATEX approval.

Unit group / category / zones

- ⊗ II 1G Ex h IIB T6...T3 Ga
- ⊗ II 1D Ex h IIIC T85 ° C...T170 ° C Da



Example of ordering: Type 5P2.873 + 1Y + Connection AP = Ordering no. 5P2.873.1Y.AP.EX