



# **ABOUT**

MATRIX PROCESS SOLUTIONS is dedicated to supporting the Australian process industry. Our team of professionals specialise in all areas of the food, beverage and pharmaceutical industries. Each member of our unique team has years of industry experience prior to joining Matrix.

This combined knowledge and dedication makes us the ideal partner for any organisation seeking a support partner for all of their process equipment needs.

Matrix is the master distributor for Alfa Laval in Australia and thus we stock an unparalleled product range, technical support and onsite service. This combined with our commitment to improving process technology through intelligent design and implementation ensures that Matrix is your perfect business partner.

With offices in four major locations; Adelaide, Brisbane, Melbourne and Sydney Matrix can guarantee nationwide coverage and fast supply of all your critical process needs.



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**PUMPS** 

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Rotary Lobe

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# Proudly partnering with Matrix Process Solutions for customer excellence

## This is Alfa Laval

Alfa Laval is not only committed to enabling customers to save water and reduce carbon footprint while driving profitability, but want to take the journey to sustainability together.

Our partnership with Matrix Process Solutions brings our market leading Hygienic Fluid Handling and Hygienic Heat Exchanger products close to you with a long time and committed Master Distributor for Australia.

Together we are committed to helping you achieve your business goals.

www.alfalaval.com.au

# **BSM UNIONS**

## Thread Type

	BSM Unions Complete	Male Part 316s/s	Hex Nut 304s/s	Liner 316s/s	BSM Gasket EPDM	BSM Gasket Teflon	BSM Gasket Nitrile
SIZE				3	0	$\bigcirc$	0
25mm / 1"	9611307740	9611303890	9611300575	9612413801	9611992821	BSMOR025T	BSMOR025N
38mm / 1.5"	9611307741	9611303891	9611300576	9612413802	9611992822	BSMOR040T	BSMOR040N
51mm / 2"	9611307742	9611303892	9611300577	9612413803	9611992823	BSMOR050T	BSMOR050N
63mm / 2.5"	9611307743	9611303893	9611300578	9612413804	9611992824	BSMOR065T	BSMOR065N
76mm / 3"	9611307744	9611303894	9611300579	9612413805	9611992825	BSMOR080T	BSMOR080N
101mm / 4"	9611307745	9611303895	9611300521	9612413806	9611992826	BSMOR100T	BSMOR100N
150mm / 6"	BSMUN1506	BSMMP1506	BSMHN1504	BSMWL1506	BSMOR150E	BSMOR150T	BSMOR150N

# **CIP UNIONS - FLAT FACED**

#### Thread Type CIP Gasket Nitrile CIP Unions Complete Male Part 316s/s CIP Gasket EPDM CIP Gasket Teflon Hex Nut 304s/s Liner 316s/s BSMCIPUN025 9612039401 9612412101 9612427007 CIPOR025T CIPOR025N 9611300575 BSMCIPUN040 9612039402 9611300576 9612412102 9612427008 CIPOR040T CIPOR040N BSMCIPUN050 9612039403 9611300577 9612412103 9612427009 CIPOR050T CIPOR050N BSMCIPUN065 9612039404 9612412104 CIPOR065N 9611300578 9612427010 CIPOR065T BSMCIPUN080 9612039405 9611300579 9612412105 9612427011 CIPOR080T CIPOR080N 9612039406 9612412106 BSMCIPUN100 9611300521 9612427012 CIPOR100T CIPOR100N BSMCIPUN125 CIPMP1256 BSMHN1254 CIPWL1256 CIPOR125E CIPOR125T CIPOR125N BSMCIPUN150 CIPMP1506 BSMHN1504 CIPWL1506 CIPOR150E CIPOR150T CIPOR150N

**Male Part** 

# **NZ UNIONS**

Liner

NZ Gasket EPDM

SIZE				3	0
25mm / 1"	BSMNZUN025	9611303890	9612411907	9612412201	9612417107
38mm / 1.5"	BSMNZUN040	9611303891	9612411908	9612412202	9612417108
51mm / 2"	BSMNZUN050	9611303892	9612411909	9612412203	9612417109
63mm / 2.5"	BSMNZUN065	9611303893	9612411910	9612412204	9612417110
76mm / 3"	BSMNZUN080	9611303894	9612411911	9612412205	9612417111
101mm / 4"	BSMNZUN100	9611303895	9612411912	9612412206	9612417112

Round Nut 304s/s

**NZ Unions Complete** 

(Hex Nuts)\*

SIZE

25mm / 1"

38mm / 1.5"

51mm / 2"

63mm / 2.5"

76mm/3"

101mm / 4"

125mm / 5"

150mm / 6"

<sup>\*</sup> Available with Round Nuts on request

# **CLAMP UNIONS**



DN0206 96113 DN0256 96113 DN0406 96113 DN0506 96113 DN0656 96113 DN0806 96113 DN0806 96113 DN1506 DN2006  DM VII  DM VIII	340179 96 340180 96 340181 96 340182 96 340183 96 340185 96 96 70N	11340318 11340319 11340320 11340321 11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9612011200 9612011200 9611991508 9611991509 9611991510 9611991511 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224 298227	9611340599 9611340599 9611340600 9611340600 9611340601 9611340603 9611340605 9611340606  SILICONE White  290090 290099 298512 298507	13MHP-0.5 13MHP-0.5 9630210180 9630210040 9630210213 9630210042 13MHP-6 13MHP-8  BUNA White	
DN0206 96113 DN0256 96113 DN0406 96113 DN0506 96113 DN0656 96113 DN0806 96113 DN0806 96113 DN1506 DN2006  DM VII  DM VIII	340179 96 340180 96 340181 96 340182 96 340183 96 340185 96 96 70N	11340319 11340320 11340321 11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9612011200 9611991508 9611991508 9611991509 9611991510 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340599 9611340600 9611340600 9611340601 9611340602 9611340603 9611340605 9611340606  SILICONE White  290090 290099 298512	13MHP-0.5 9630210180 9630210180 9630210040 9630210213 9630210248 9630210042 13MHP-6 13MHP-8  BUNA White	
DN0206 96113 DN0256 96113 DN0406 96113 DN0506 96113 DN0656 96113 DN0806 96113 DN0806 96113 DN1506 DN2006  DM VII  DM VIII	340179 96 340180 96 340181 96 340182 96 340183 96 340185 96 96 70N	11340319 11340320 11340321 11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9612011200 9611991508 9611991508 9611991509 9611991510 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340599 9611340600 9611340600 9611340601 9611340602 9611340603 9611340605 9611340606  SILICONE White  290090 290099 298512	13MHP-0.5 9630210180 9630210180 9630210040 9630210213 9630210248 9630210042 13MHP-6 13MHP-8  BUNA White	
DN0256 96113 DN0406 96113 DN0506 96113 DN0656 96113 DN0806 96113 DN1006 96113 DN1006 96113 DN1506 DN2006  DM VII  DOM VI	340180 96 340181 96 340182 96 340183 96 340184 96 340185 96 96 70N	11340320 11340321 11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9611991508 9611991508 9611991509 9611991510 9611991511 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340600 9611340600 9611340601 9611340602 9611340603 9611340605 9611340606  SILICONE White  290090 290099 298512	9630210180 9630210180 9630210040 9630210213 9630210042 13MHP-6 13MHP-8  BUNA White	
DN0406 96113 DN0506 96113 DN0656 96113 DN0806 96113 DN0806 96113 DN1006 DN1006 DN2006  DM VII  DM VII  DOM VII	340181 96 340182 96 340183 96 340184 96 340185 96 96 70N	11340321 11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9611991508 9611991509 9611991510 9611991511 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340600 9611340601 9611340602 9611340603 9611340604 9611340605 9611340606  SILICONE White  290090 290099 298512	9630210180 9630210040 9630210213 9630210248 9630210042 13MHP-6 13MHP-8	
DN0506 96113 DN0656 96113 DN0806 96113 DN1006 96113 DN1006 DN1006 DN2006  DM VII  DM VII  DOM	340182 96 340183 96 340184 96 340185 96 96 96 700N	11340322 11340323 11340324 11340325 11340186 11340187 NITRILE	9611991509 9611991510 9611991511 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340601 9611340602 9611340603 9611340604 9611340605 9611340606 SILICONE White	9630210040 9630210213 9630210248 9630210042 13MHP-6 13MHP-8  BUNA White	
DN0656 96113 DN0806 96113 DN1006 96113 DN1506 DN2006  DM VII  DOM	340183 96 340184 96 340185 96 96 96 700N	011340323 011340324 011340325 011340186 011340187 NITRILE	9611991510 9611991511 9611991512 9612011206 9612011207  Solid PTFE  290270 290271 298224	9611340602 9611340603 9611340604 9611340605 9611340606 SILICONE White	9630210213 9630210248 9630210042 13MHP-6 13MHP-8 BUNA White	
DN0806 96113 DN1006 96113 DN1506 DN2006  DM VIT  DM 290 DM	340184 96 940185 96 96 96 97 97 97 97 97 97 97 97 97 97 97 97 97	11340324 11340325 11340186 11340187 NITRILE 290272 290264 298451	9611991512 9612011206 9612011207 Solid PTFE  290270 290271 298224	9611340603 9611340604 9611340605 9611340606 SILICONE White 290090 290099 298512	9630210248 9630210042 13MHP-6 13MHP-8  BUNA White	
DN1506 DN2006  DM VII  1273 290 1265 290 1141 290 10044 290 10043 290	96 96 70N	11340186 11340187 NITRILE 290272 290264 298451	9611991512 9612011206 9612011207 Solid PTFE  290270 290271 298224	9611340605 9611340606 SILICONE White  290090 290099 298512	13MHP-6 13MHP-8 BUNA White	
DN2006  DM VII  10273 290 10265 290 10141 290 10044 290 10043 290	96 TON 10274 10266 10009 10022	NITRILE  290272 290264 298451	9612011207  Solid PTFE  290270 290271 298224	9611340606  SILICONE White  290090 290099 298512	13MHP-8  BUNA White  298501	
DN2006  DM VII  10273 290 10265 290 10141 290 10044 290 10043 290	96 TON 10274 10266 10009 10022	NITRILE  290272 290264 298451	9612011207  Solid PTFE  290270 290271 298224	9611340606  SILICONE White  290090 290099 298512	13MHP-8  BUNA White  298501	
290 20273 290 20265 290 20141 290 20044 290 20043 290	0274 0266 0009 0022	290272 290264 298451	290270 290271 298224	290090 290099 298512	298501	
0265 290 0141 290 0044 290 0043 290	0274 0266 0009 0022	290264 298451	290271 298224	290099 298512		
0265 290 0141 290 0044 290 0043 290	0266 0009 0022	290264 298451	290271 298224	290099 298512		
0141 290 0044 290 0043 290	0009	298451	298224	298512		
0044 290 0043 290	0022					
0043 290		298542	298227	200507	298495	
	1030		270227	270307		
	1030	298453	298228	298508	298496	
0048 290	0040	298454	298223	298509	298499	
0036 290	0049	298455	298225	298510	298497	
0018 290	0053	298456	298226	298511	298498	
0234 290	)220	290112	298235	298605		
			298236	298606		
			298237	298607		
			290168	298608		
DM VII	ron	NITRILE	SILICONE White	BUNA White	VITON White	Teflon / Viton Type 3 Envelope
50	) (					
1031 290	1007 96	11990765	208/11	208308	290071	290072
						290073
						290074
						290075
						290076
						290078
			270410		270000	290077
		JJUZ 70ZZU				270000
	,231			270232		
	PDM VIII  10031 290  10038 290  10035 290  10138 290  10131 290  10114 290	PDM VITON  VITON  290020  290020  PDM VITON  VITON  290031  290097  96  20038  290115  96  20017  290117  96  20138  290119  96  2025  290172  96  20131  290182  96  2014  290202  20226  290237	PDM VITON NITRILE  290031 290097 9611990765 29038 290115 9611990766 20017 290117 9611990767 20035 290118 9611990768 20138 290119 9611990769 20138 29019 9611990769 20131 290182 9630298220 20114 290202 20226 290237	298235 298236 298237 290168  DM VITON NITRILE SILICONE White  0031 290097 9611990765 298411 0038 290115 9611990766 298412 0017 290117 9611990767 298413 0035 290118 9611990768 298414 0138 290119 9611990769 298415 0138 290119 9611990769 298415 0138 290119 9611990770 298416 0131 290182 9630298220 0114 290202 0114 290202 0114 290202	2934 290220 290112 298235 298605 298236 298606 298237 298607 290168 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 298608 2986	298236 298605 298237 298607 290168 298608  DM VITON NITRIE SILICONE White BUNA White VITON White  5031 290097 9611990765 298411 298308 290071 2038 290115 9611990766 298412 298431 290070 2017 290117 9611990767 298413 298417 290062 2035 290118 9611990768 298414 290069 290057 20138 290119 9611990769 298415 298432 290055 20138 290119 9611990769 298415 298433 290086 20131 290182 9630298220 290236 2014 290202 20226 290237

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# TRI-CLOVER ACCESSORIES

## **MESH SCREEN GASKETS 40MPS, ORIFACE A80MP**

	BUNA 6 MESH	BUNA 10 MESH (standard)	EPDM 10 MESH	EPDM 60 MESH	EPDM 80 MESH	EPDM 100 MESH
SIZE		0	0		0	0
38mm / 1.5"	40MPS-U-1.5-6M	298488	40MPS-E-1.5-10M	40MPS-E-1.5-60M	40MPS-E-1.5-80M	40MPS-E-1.5-80M
51mm / 2"	40MPS-U-2-6M	298434	40MPS-E-2-10M	40MPS-E-2-60M	40MPS-E-2-80M	40MPS-E-2-80M
63mm / 2.5"	40MPS-U-2.5-6M	298436	40MPS-E-2.5-10M	40MPS-E-2.5-60M	40MPS-E-2.5-80M	40MPS-E-2.5-80M
76mm / 3"	40MPS-U-3-6M	290034	40MPS-E-3-10M	40MPS-E-3-60M	40MPS-E-3-80M	40MPS-E-3-80M
101mm / 4"	40MPS-U-4-6M	298438	40MPS-E-4-10M	40MPS-E-4-60M	40MPS-E-4-80M	40MPS-E-4-80M





Thread Type

# SMS UNION

	Complete Union	Male Part 316s/s	Liner 316s/s	Nut 304s/s	End Cap with Chain	EPDM	NBR	PTFE	FPM
SIZE				OF.	Opas opas	0	0	0	0
25mm / 1"	9611330382	191001	190994	190613	9612145108	3131703753	190601	3131705511	3131703752
32mm 1.25"	9611330389	191002	190995	190614	Not Available	3131703762	190602	3131705512	9611991306
38mm / 1.5"	9611330383	191003	190996	190615	9612145109	3131703772	190603	3131705513	191661
51mm / 2"	9611330384	191004	190997	190616	9612145110	3131703785	190604	3131705514	3131703782
63mm / 2.5"	9611330385	191005	190998	190617	9612145111	3131703793	190605	3131705515	3131703792
76mm/3"	9611330386	191006	190999	190618	9612145112	3131703803	190606	3131705516	3131703801
101mm / 4"	9611330387	3131708173	3131708852	3131708841	9612145113	3134708862	3131708861	3131705517	3131708863

# DIN UNIONS

## Thread Type /

		Complete Union	Male Part 316s/s	Liner 316s/s	Nut 304s/s	End Cap with Chain	DIN Blank
	SIZE					Constant	HELD AND AND AND AND AND AND AND AND AND AN
Ī	DN10	9611305791	9611305901	9611305951	9611306420	9611152301	9612152413
	DN15	9611305801	9611305911	9611305961	9611306430	9612152302	9612152414
	DN20	9611290012	9611290032	9611290042	9611290021	9613152303	9612152415
	DN25	9611331119	9611331087	9611331095	3131800141	9614152304	9612152416
	DN32	9611331120	9611331088	9611331096	3131800142	9615152305	9612152417
	DN40	9611331121	9611331089	9611331097	3131800143	9616152306	9612152418
	DN50	9611331122	9611331090	9611331098	3131800144	9617152307	9612152419
	DN65	9611331123	9611331091	9611331099	3131800145	9618152308	9612152420
	DN80	9611331124	9611331092	9611331100	3131800146	9619152309	9612152422
	DN100	9611331126	9611331094	9611331102	3131800148	9620152310	9612152423
	DN125		9611306131	9611306181	9611306450	9621152311	9612152424
	DN150		9611306141	9611306191	9611306460	9622152312	9612152425
	25mm / 1"	9611330394	9612157917	9612158017	3131800141	9614152304	9611991269
	38mm / 1.5"	9611330395	9612157919	9612158019	3131800143	9616152306	9611991271
	51mm / 2"	9611330396	9612157920	9612158020	3131800144	9617152307	9611991272
	63mm / 2.5"	9611330397	9612157921	9612158021	3131800145	9618152308	9611991273
	76mm / 3"	9611330398	9612157923	9612158023	3131800146	9619152309	9611991275
	101mm / 4"	9611330399	9612157924	9612158024	3131800148	9620152310	9611991276

	EPDM Gasket Black	NBR Gasket Blue	PTFE Gasket	FPM Gasket	EPDM Lipped Gasket
SIZE	0	0		0	
DN10	9611991267	52734601	9611991873	9611991861	9611900253
DN15	9611991268	52734602	9611991874	9611991862	9611900254
DN20	9611991323	52734603	9611991875	9611991863	9611900255
DN25	9611991269	52734604	9611991876	9611991864	9611900256
DN32	9611991270	52734605	9611991877	9611991865	9611900257
DN40	9611991271	52734606	9611991878	9611991866	9611900258
DN50	9611991272	52734607	9611991879	9611991867	9611900259
DN65	9611991273	52734608	9611991880	9611991868	9611900260
DN80	9611991275	52734609	9611991882	9611991128	9611900261
DN100	9611991276	52734611	9611991883	9611991870	9611900263
DN125	9611991277	9611991265	9611991884	9611991871	9611900264
DN150	9611991278	9611991266	9611991885	9611991872	9611900265
25mm / 1"	9611991269	52734604	9611991876	9611991864	9611991864
32mm 1.25"	9611991270	52734605	9611991877	9611991865	9611991865
38mm / 1.5"	9611991271	52734606	9611991878	9611991866	9611991866
51mm / 2"	9611991272	52734607	9611991879	9611991867	9611991867
63mm / 2.5"	9611991273	52734608	9611991880	9611991868	9611991868
76mm / 3"	9611991275	52734609	9611991882	9611991128	9611991128
101mm / 4"	9611991276	52734611	9611991883	9611991870	9611991870

# ALFA LAVAL SANITARY FLANGE UNION

	Complete Union	Flange without Oring grove	Flange with Oring grove	Seal EPDM	Seal Silicone	Seal FPM	Screw and Nut set
SIZE		1					
25mm / 1"	9612498710	9612492910	9612493010	9612402631	9612402641	9612402651	9612499301
38mm / 1.5"	9612498711	9612492911	9612493011	9612402632	9612402642	9612402652	9612499301
51mm / 2"	9612498712	9612492912	9612493012	9612402633	9612402643	9612402653	9612499301
63mm / 2.5"	9612498713	9612492913	96124903013	9612402634	9612402644	9612402654	9612499301
76mm / 3"	9612498714	9612492914	9612493014	9612402635	9612402645	9612402655	9612499301
101mm / 4"	9612498715	9612492915	9612493015	9612402636	9612402646	9612402656	9612499302

# **DIN 11864-1, -2, -3 SANITARY UNIONS**

DIN 11864-1









DIN 11864-2





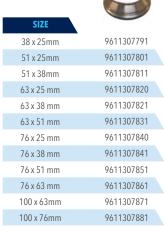


AVAILABL	E SIZES	V
DN10	1/2"	
DN15	3/4"	
DN20		
DN25	1"	
DN32		
DN40	1.5"	
DN50	2"	
DN65	2.5"	
DN80	3"	
DN100	4"	
DN125		
DN150		

# MISCELLANEOUS FITTINGS

Ш	NEKS	IVI	Crili	NEL
	4		-	

BSM REDUCING



HOSE TAILS MACHINED











**DOMED END CAPS** 





**BSM Blank Hex Nut** 



**BSM Blank Cap** 

			400		-
18mm / 3/4"	HOSET0206M		EC0206D		
25mm / 1"	HOSET0256M	HOSET0256	EC0256D	BSMBN0254	9611330629
32mm / 1.25"	HOSET0326M	HOSET0326	EC0326D		
38mm / 1.5"	HOSET0406M	HOSET0406	EC0406D	BSMBN0404	9611330630
51mm / 2"	HOSET0506M	HOSET0506	EC0506D	BSMBN0504	9611330631
63mm / 2.5"	HOSET0656M	HOSET0656	EC0656D	BSMBN0654	9611330632
76mm / 3"	HOSET0806M	HOSET0806	EC0806D	BSMBN0804	9611330633
101mm / 4"	HOSET1006M	HOSET1006	EC1006D	BSMBN1004	9611330634
125mm / 5"		HOSET1256		BSMBN1254	BSMBC1256
150mm / 6"		HOSET1506	EC1506D	BSMBN1504	BSMBC1506
200mm / 8"			EC2006D		

# 'PEDCO' HYGENIC UNIONS

# Thread Type

	Union Complete	Male Part 316s/s	Hex Nut 304s/s	Liner 316s/s	Gasket EPDM	Gasket Teflon	Blank Cap
SIZE					0		
12mm / 1/2"	PHUUN0156	PHUMP0156	BSMHN0154	PHUWL0156	PHUOR0156	PHUOR0156T	PHUBC0156
18mm / 3/4"	PHUUN0206	PHUMP0206	BSMHN0204	PHUWL0206	PHUOR0206	PHUOR0206T	PHUBC0206
25mm / 1"	PHUUN0256	PHUMP0256	9611300575	PHUWL0256	PHUOR0256	PHUOR0256T	PHUBC0256
38mm / 1.5"	PHUUN0406	PHUMP0406	9611300576	PHUWL0406	PHUOR0406	PHUOR0406T	PHUBC0406
51mm / 2"	PHUUN0506	PHUMP0506	9611300577	PHUWL0506	PHUOR0506	PHUOR0506T	PHUBC0506
63mm / 2.5"	PHUUN0656	PHUMP0656	9611300578	PHUWL0656	PHUOR0656	PHUOR0656T	PHUBC0656
76mm / 3"	PHUUN0806	PHUMP0806	9611300579	PHUWL0806	PHUOR0806	PHUOR0806T	PHUBC0806
101mm / 4"	PHUUN1006	PHUMP1006	9611300521	PHUWL1006	PHUOR1006	PHUOR1006T	PHUBC1006

# IDF UNION

Thread Type /////

	<b>Complete Union</b>	Male Part	Liner	Nut	Gasket NBR
SIZE					0
25mm / 1"	9611330955	3131900621	3131900681	9611300053	3131900311
38mm / 1.5"	9611330956	3131900631	3131900691	9611300054	3131900321
51mm / 2"	9611330957	3131900153	3131900273	9611300055	3131900331
63mm / 2.5"	9611330958	3131900163	3131900711	9611300056	3131900341
76mm / 3"	9611330959	3131900173	3131900721	9611300057	3131900351
101mm / 4"	9611330960	9611303815	9611303835	9611303970	9611991477

# WINE UNIONS

	Male Part Butt Weld	Liner Butt Weld	Wine Nut Brass	Liner Slip On Weld	Wine Gasket White Rubber	Nut Stainless Steel
SIZE	<b>G</b>			O	0	1
25mm / 1"	WINMP0256	WINLB0256	WINNU025B	WINLS0256	WINOR025WR	WINNU0254S
38mm / 1.5"	WINMP0406	WINLB0406	WINNU040B	WINLS0406	WINOR040WR	WINNU0404S
51mm / 2"	WINMP0506	WINLB0506	WINNU050B	WINLS0506	WINOR050WR	WINNU0504S
63mm / 2.5"	WINMP0656	WINLB6506	WINNU065B	WINLS0656	WINOR065WR	WINNU0654S
76mm / 3"	WINMP0806	WINLB0806	WINNU080B	WINLS0806	WINOR080WR	WINNU0804S
101mm / 4"	WINMP1006	WINLB1006	WINNU100B	WINLS1006	WINOR100WR	WINNU1004S

	90 Deg Polished 304s/s	90 Deg Polished 316s/s	45 Deg Polished 316s/s	180 Deg Polished 316s/s	90 Deg 1D bends	90 Deg 3xD Long Radius 316s/s
SIZE					P	
12mm / 1/2"		BENDP0156090	BENDP0156045	BENDP0156180		
18mm / 3/4"	BENDP0204090	BENDP0206090	BENDP0206045	BENDP0206180		
25mm / 1"	9612636501	9612636507	BENDP0256045	BENDP0256180	BENDP02561XD	9612928268
38mm / 1.5"	9612636502	9612636508	BENDP0406045	BENDP0406180	BENDP04061XD	9612928270
51mm / 2"	9612636503	9612636509	BENDP0506045	BENDP0506180	BENDP05061XD	9612928271
63mm / 2.5"	9612636504	9612636510	BENDP0656045	BENDP0656180	BENDP06561XD	9612928272
76mm / 3"	9612636505	9612636511	BENDP0806045	BENDP0806180	BENDP08061XD	9612928273
101mm / 4"	9612636506	9612636512	BENDP1006045	BENDP1006180	BENDP10061XD	
125mm / 5"	BENDP1254090	BENDP1256090	BENDP1256045	BENDP1256180		
150mm / 6"	BENDP1504090	BENDP1506090	BENDP1506045	BENDP1506180		



	EQUAL REDUCING TEES 316S/S	PULLED REDUCING TEES 316S/S		EQUALTEE Polished 316s/s	PULLED TEE Polished 316s/s	
					1	
SIZE	9		SIZE	110		
25 x 8	TEERP025-0106	TEEPP025-0104	13mm / 1/2"	TEEEP0156		
25 x 12	TEERP025-0156	TEEPP025-0156	19mm / 3/4"	TEEEP0206	TEEDDOOF (	
25 x 18	TEERP025-0206	TEEPP025-0206	25mm / 1"	TEEEP0256	TEEPP0256	
22 12	TEEDD022 04E/	TEEDD033 01E/	32mm / 1.25"	TEEEP0326	TEEPP0326	
32 x 12	TEERP032-0156	TEEPP032-0156	38mm / 1.5"	TEEEP0406	TEEPP0406	
32 x 18 32 x 25	TEERP032-0206 TEERP032-0256	TEEPP032-0120 TEEPP032-0256	51mm / 2" 63mm / 2.5"	TEEEP0506 TEEEP0656	TEEPP0506 TEEPP0656	
32 X Z3	TEERFU32-U230	TEEFF032-0230	76mm/3"	TEEEP0806	TEEPP0806	
38 x 12	TEERP040-0156	TEEPP040-0156	101mm / 4"	TEEEP1006	TEEPP1006	
38 x 18	TEERP040-0206	TEEPP040-0206	125mm / 5"	TEEEP1256	TEEPP1256	
38 x 25	TEERP040-0256	TEEPP040-0256	150mm / 6"	TEEEP1506	TEEPP1506	
38 x 32	TEERP040-0326	TEEPP040-0326	200mm / 8"	TEEEP2006		
51 x 12	TEERP050-0156	TEEPP050-0156				
51 x 18	TEERP050-0206	TEEPP050-0206		'Y' PIECE Polished 316s/s	PULLED CROSS Polished 316s/s	CROSS PIECE Polished 316s/s
51 x 25	TEERP050-0256	TEEPP050-0256		3103/3	1 011311ed 3 1 03/3	ronsned 5 ros/s
51 x 32	TEERP050-0326	TEEPP050-0326		A A		- 0
51 x 38	TEERP050-0406	TEEPP050-0406		1		100
				THE STATE OF		0,000
63 x 12	TEERP065-0156	TEEPP065-0156	SIZE			
63 x 18	TEERP065-0206	TEEPP065-0206	13mm / 1/2"	TEEYP0156		CROEP0156
63 x 25	TEERP065-0256	TEEPP065-0256	19mm / 3/4"	TEEYP0206		CROEP0206
63 x 32	TEERP065-0326	TEEPP065-0326	25mm / 1"	TEEYP0256	CROPP0256	CROEP0256
63 x 38	TEERP065-0406	TEEPP065-0406	32mm / 1.25"	TEEYP0326	CROPP0326	CROEP0326
63 x 51	TEERP065-0506	TEEPP065-0506	38mm / 1.5"	TEEYP0406	CROPP0406	CROEP0406
7/ 10	TEEDDOOO 01E/	TEEDDOOD 01E/	51mm / 2"	TEEYP0506	CROPP0506	CROEP0506 CROEP0656
76 x 12	TEERP080-0156 TEERP080-0206	TEEPP080-0156 TEEPP080-0206	63mm / 2.5" 76mm / 3"	TEEYP0656 TEEYP0806	CROPP0656 CROPP0806	CROEP0000
76 x 25	TEERP080-0256	TEEPP080-0256	101mm / 4"	TEEYP1006	CROPP1006	CROEP1006
76 x 32	TEERP080-0326	TEEPP080-0326	125mm / 5"	TEEYP1256	CROPP1256	CROEP1256
76 x 38	TEERP080-0406	TEEPP080-0406	150mm / 6"	TEEYP1506	CROPP1506	CROEP1506
76 x 51	TEERP080-0506	TEEPP080-0506	130111117 0	12211 1300	CROTT 1300	CHOZI 1000
76 x 63	TEERP080-0656	TEEPP080-0656				
				45 DEGREE TEES 316s/s	SWEPT TEE Polished 316s/s	
101 x 12	TEERP100-0156	TEEPP100-0156		3105/5	Polisiled 3 105/5	
101 x 18	TEERP100-0206	TEEPP100-0206			40	
101 x 25	TEERP100-0256	TEEPP100-0256				
101 x 32	TEERP100-0326	TEEPP100-0326				
101 x 38	TEERP100-0406	TEEPP100-0406	SIZE			
101 x 51	TEERP100-0506	TEEPP100-0506	25mm / 1"	TEEAP025645	TEESP0256	
101 x 63	TEERP100-0656	TEEPP100-0656	38mm / 1.5"	TEEAP040645	TEESP0406	
101 x 76	TEERP100-0806	TEEPP100-0806	51mm / 2"	TEEAP050645	TEESP0506	
			63mm / 2.5"	TEEAP065645	TEESP0656	
125 x 51	TEERP125-0506	TEEPP125-0506	76mm / 3"	TEEAP080645	TEESP0806	
45005	TEEDD1E0 0057	TEEDD150.0057	101mm / 4"	TEEAP100645	TEESP1006	
150 x 25	TEERP150-0256	TEEPP150-0256				
150 x 32	TEERP150-0326	TEEPP150-0326				
150 x 38 150 x 51	TEERP150-0406 TEERP150-0506	TEEPP150-0406 TEEPP150-0506				
150 x 51	TEERP150-0656	TEEPP150-0506				
150 x 05	TEERP150-0806	TEEPP150-0806				
150 x 101	TEERP150-1006	TEEPP150-1006				
.00 % 101						

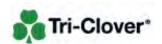
# **TUBE REDUCERS**

# 316S/S POLISHED

	CONCENTRIC REDUCERS	ECCENTRIC REDUCERS
SIZE		
12 x 8mm	CONCP015-0086	ECCEP015-0086
12 x 10mm	CONCP015-0106	ECCEP015-0106
20 x 12mm	CONCP020-0156	ECCEP020-0156
25 x 6mm	CONCP025-0066	
25 x 12mm	CONCP025-0156	ECCEP025-0156
25 x 20mm	CONCP025-0206	ECCEP025-0206
32 x 12mm	CONCP032-0156	ECCEP032-0156
32 x 18mm	CONCP032-0206	ECCEP032-0206
32 x 25mm	CONCP032-0256	ECCEP032-0256
38 x 12mm	CONCP040-0156	ECCEP040-0156
38 x 18mm	CONCP040-0206	ECCEP040-0206
38 x 25mm	CONCP040-0256	ECCEP040-0256
38 x 32mm	CONCP040-0326	ECCEP040-0326
51 x 10mm	CONCP050-0106	
51 x 12mm	CONCP050-0156	ECCEP050-0156
51 x 18mm	CONCP050-0206	ECCEP050-0206
51 x 25mm	CONCP050-0256	ECCEP050-0256
51 x 32mm	CONCP050-0326	ECCEP050-0326
51 x 38mm	CONCP050-0406	ECCEP050-0406
63 x 18mm	CONCP065-0206	
63 x 25mm	CONCP065-0256	ECCEP065-0256
63 x 32mm	CONCP065-0326	ECCEP065-0326
63 x 38mm	CONCP065-0406	ECCEP065-0406
63 x 51mm	CONCP065-0506	ECCEP065-0506
76 x 12mm	CONCP080-0156	
76 x 25mm	CONCP080-0256	ECCEP080-0256
76 x 32mm	CONCP080-0326	
76 x 38mm	CONCP080-0406	ECCEP080-0406
76 x 51mm	CONCP080-0506	ECCEP080-0506
76 x 63mm	CONCP080-0656	ECCEP080-0656

Custom sizes available on request

# TRI-CLOYER® ULTRAPURE FITTINGS





## TRI-CLOVER BIOPHARM TUBES AND FITTINGS

Tubes and fittings in the BioPharm range are manufactured in accordance with extra-strict quality assurance procedures.

All cold-formed BioPharm tubular products feature consistent wall thicknesses as a result of the use of fabrication grade tubing. Once cold forming has been completed, these tubular products are resized to ensure that their ovality always falls within the prescribed tolerances.

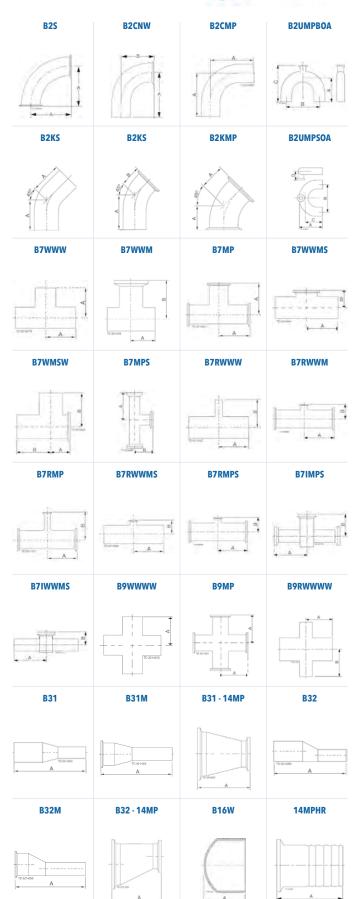
## **AVAILABLE STANDARDS**

ASME BPE DIN11866 Range A ISO 1127 DIN11866 Range B ISO 2037

SIZE

IMPERIAL DN10 - DN150 METRIC 1/2" - 6"

		SURFACE FIN	IISH
CODE	STD	INSIDE	OUTSIDE
PL	ASME BPE	< 0.5	<0.8
PM	ASME BPE	<0.4 EP	< 0.8
H4o	DIN11866	<0.8	<0.8
H3n	DIN11866	< 0.4	< 0.8



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SLIP ON FLANGE T/S TUBE 316 s/s TABLE D



SLIP ON FLANGE T/S TUBE 316 s/s TABLE E

BLIND FLANGE 316 s/s TABLE E









NB	INCH					
12mm	1/2"			FLANG0156E		
19mm	3/4"			FLANG0206E	FLANG0206BE	
25mm	1"	FLANG0256SD		FLANG0256SE	FLANG0256BE	
32mm	1.25"	FLANG0326SD		FLANG0326SE		
38mm	1.5"	FLANG0406SD	FLANG0406BD	FLANG0406SE	FLANG0406BE	
51mm	2"	FLANG0506SD	FLANG0506BD	FLANG0506SE	FLANG0506BE	
63.5mm	2.5"	FLANG0656SD	FLANG0656BD	FLANG0656SE	FLANG0656BE	
76mm	3"	FLANG0806SD	FLANG0806BD	FLANG0806SE	FLANG0806BE	
101mm	4"	FLANG1006SD	FLANG1006BD	FLANG1006SE	FLANG1006BE	
125mm	5"	FLANG1256SD	FLANG1254BD	FLANG1256SE	FLANG1256BE	
150mm	6"	FLANG1506SD	FLANG1506BD	FLANG1506SE	FLANG1506BE	
200mm	8"	FLANG2006SD	FLANG2006BD	FLANG2006SE	FLANG2006BE	

ANSI, DIN, PN16 and other Flange standards available.

**Welding Neck Flange** 

**Plate Flange** 

Slip-On Flange

**Blind Flange** 









**Welding Neck Flange** 

**Blind Flange** 

Slip-On Flange

Lap Joint Flange











# COMPRESSION FITTINGS

	Straight Connector	Union Elbow	Union Tee	Union Cross	Bulk Head Union
SIZE		E FLAT			Diff
1/8"	TSU2	TSEU2	TSTU2		TSBHU2
1/4"	TSU4	TSEU4	TSTU4	TSCR4	TSBHU4
3/8"	TSU6	TSEU6	TSTU6	TSCR6	TSBHU6
1/2"	TSU8	TSEU8	TSTU8	TSCR8	TSBHU8
5/8"	TSU10	TSEU10	TSTU10		TSBHU10
3/4"	TSU12	TSEU12	TSTU12		TSBHU12
1"	TSU16	TSEU16	TSTU16		TSBHU16
	Male Connector	Famala Connector	Dadusina Union	Mala Filham	Female Elbow
	Male Connector	Female Connector	Reducing Union	Male Elbow	remaie Elbow
SIZE		1			
1/8" - 1/8"	TSMC22			TSEM22	
1/4" - 1/8"		TSFC42	TSUR42		
1/4" - 1/4"	TSMC44	TSFC44		TSEM44	TSEF44
1/4" - 3/8"	TSMC46				
1/4" - 1/2"	TSMC48		TOUR	T0514/4	
3/8" - 1/4"	TSMC64	705044	TSUR64	TSEM64	T0F5//
3/8" - 3/8"	TSMC66	TSFC66		TSEM66	TSEF66
3/8" - 1/2"	TSMC68				
1/2" - 1/4"			TSUR84		
1/2" - 3/8"	TSMC86		TSUR86		
1/2" - 1/2"	TSMC88	TSFC88		TSEM88	TSEF88
1/2" - 3/4"	TSMC812				
5/8" - 1/2"	TSMC108				
3/4" - 3/8"			TSUR126		
3/4" - 1/2"	TSMC128	TSFC128			
3/4" - 3/4"	TSMC1212	TSFC1212		TSEM1212	
3/4" - 1"	TSMC1216				



TSFC1616

TSMC1616

TSUR1612

TSEM1616

1" - 3/4"

1" - 1"

# **SCREWED BSP FITTINGS**

		REDUC BUS		REDUCING NIPPLES			REDUCING BUSH	REDUCING NIPPLES
		100						
	SI	IZE E				SIZE		
	1/4	- 1/8" BSPRB008	B-0066 B	SPRN008-0066		1 1/4 - 3/4"	BSPRB032-0206	BSPRN032-0156
	3/8 -	- 1/8" BSPRB010	0-0066 B	SPRN010-0066		1 1/4 - 1"	BSPRB032-0256	BSPRN032-0256
	3/8 -	- 1/4" BSPRB010	D-0086 B	SPRN010-0086		1 1/2 - 1/2"	BSPRB040-0156	BSPRN040-0156
	1/2 -	- 1/8" BSPRB01:	5-0066 B	SPRN015-0066		1 1/2 - 3/4"	BSPRB040-0206	BSPRN040-0206
	1/2 -	- 1/4" BSPRB01	5-0086 B	SPRN015-0086		1 1/2 - 1"	BSPRB040-0256	BSPRN040-0256
	1/2 -	- 3/8" BSPRB01	5-0106 B	SPRN015-0106		1 1/2 - 1 1/4"	BSPRB040-0326	BSPRN040-0326
	3/4 -	- 1/4" BSPRB020	0-0086 B	SPRN020-0066		2 - 1"	BSPRB050-0256	BSPRN050-0256
		- 3/8" BSPRB020		SPRN020-0086		2 - 1 1/2"	BSPRB050-0406	BSPRN050-0406
		- 1/2" BSPRB020		SPRN020-0156		2 1/2" - 2"	BSPRB065-0506	BSPRN065-0506
		1/4" BSPRB02		SPRN020-0086		3 - 2"	BSPRB080-0506	BSPRN080-0506
		3/8" BSPRB02		SPRN025-0106		3 - 2 1/2"	BSPRB080-0656	BSPRN080-0656
		1/2" BSPRB02! 3/4" BSPRB02!		SPRN025-0156 SPRN025-0206		4 - 3"	BSPRB100-0806	BSPRN100-0806
		BARREL NIPPLE	HEX NIPPLE	S RSP I	BLANK CAP	HEX PLUGS	BSP ELBOW	SOCKETS
		DARREE WITTE	TIEX III I EE	5 551	JERITH CAI	HEAT EGGS	531 225011	JOCKETS
NB \	INCH					The state of the s	Chris	
6mm	1/8"	BSPBN0066	BSPHN0066	)		BSPPL0066	BSPEL0066	BSPS00066
8mm	1/4"	BSPBN0086	BSPHN0086		PCA0086	BSPPL0086	BSPEL0086	BSPS00086
10mm	3/8"	BSPBN0106	BSPHN0106	BS	PCA0106	BSPPL0106	BSPEL0106	BSPS00106
15mm	1/2"	BSPBN0156	BSPHN0156	BS	PCA0156	BSPPL0156	BSPEL0156	BSPS00156
20mm	3/4"	BSPBN0206	BSPHN0206	BS	PCA0206	BSPPL0206	BSPEL0206	BSPS00206
25mm	1"	BSPBN0256	BSPHN0256	BS	PCA0256	BSPPL0256	BSPEL0256	BSPS00256
32mm	1 1/4"	BSPBN0326	BSPHN0326	BS	PCA0326	BSPPL0326	BSPEL0326	BSPS00326
40mm	1 1/2"	BSPBN0406	BSPHN0406	BS	PCA0406	BSPPL0406	BSPEL0406	BSPSO0406
50mm	2"	BSPBN0506	BSPHN0506		PCA0506	BSPPL0506	BSPEL0506	BSPS00506
65mm	2 1/2"	BSPBN0656	BSPHN0656		PCA0656	BSPPL0656	BSPEL0656	BSPS00656
80mm	3"	BSPBN0806	BSPHN0806		PCA0806	BSPPL0806	BSPEL0806	BSPS00806
100mm	4"	BSPBN1006	BSPHN1006	) BS	PCA1006	BSPPL1006	BSPEL1006	BSPSO1006
	MALE E BEND	BSP HOSETAIL	TOE NIPPLE	s	TEE	UNION	BSP/BSM MALE ADAPTOR	BSP TO TUBE ADAPTOR
			BSPTN0066	BS	PTE0066	BSPUN0066		
BSPELO	0086MF	BSPHT0086	BSPTN0086		PTE0086	BSPUN0086		
	106MF	BSPHT0106	BSPTN0106		PTE0106	BSPUN0106		BSPTU0106
BSPEL0	)156MF	BSPHT0156	BSPTN0156	BS	PTE0156	BSPUN0156		BSPTU0156
BSPEL0	)206MF	BSPHT0206	BSPTN0206	BS	PTE0206	BSPUN0206		BSPTU0206
BSPEL0	)256MF	BSPHT0256	BSPTN0256	BS	PTE0256	BSPUN0256	9611307770	BSPTU0256
BSPEL0	)326MF	BSPHT0326	BSPTN0326	BS	PTE0326	BSPUN0326		BSPTU0326
BSPEL0	)406MF	BSPHT0406	BSPTN0406	BS	PTE0406	BSPUN0406	9611307771	BSPTU0406
BSPEL0	)506MF	BSPHT0506	BSPTN0506	BS	PTE0506	BSPUN0506	9611307772	BSPTU0506
			BSPTN0656	BS	PTE0656	BSPUN0656	9611307773	BSPTU0656

INCH

1/8" 1/4"

3/8"

1/2"

3/4"

1"

1 1/4"

1 1/2"

2"

2 1/2"

3"

4"

6mm

8mm 10mm

15mm 20mm

25mm

32mm

40mm 50mm

65mm 80mm

100mm

BSPUN0806

BSPUN1006

9611307774

BSPTE0806

BSPTE1006

BSPTN0806

BSPTN1006

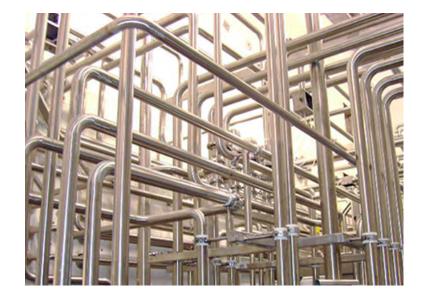
BSPTU0806

BSPTU1006

# **TUBE - FOOD GRADE AS 1528**

# POLISHED (std supply) POLISHED (std supply) 304s/s 316s/s



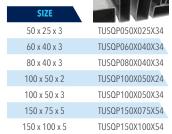


# STRUCTURAL STEEL PARTS

SQUARE SECTION TUBE POLISHED 304s/s \*\*



RECTANGULAR SECTION TUBE POLISHED 304s/s \*



\*\* 316s/s Available on request

## FLAT BAR SOLID ROUND BAR ANGULAR SECTION







# **TUBE TOOLS**

# TUBE CUTTING BLOCK



\$12E

25mm / 1"

9611981070

38mm / 1.5"

9611981071

51mm / 2"

9611981072

63mm / 2.5"

9611981073

76mm / 3"

9611981074

101mm / 4"

9611981075

#### TUBE CUTTING BLADES TO SUIT GF CUTTERS



Tube 63mm 64 teeth

CSI035

(designed t/s dairy tube)

# **UNION SPANNERS**

		HEX SPANNERS ALLOY	HEX SPANNERS ALUMINIUM	ROUND NUT SPANNERS	ROUND NUT SPANNERS (Articulated)
	SIZE	Y	T		
	10 - 20mm				9611901027
	25mm / 1"	SPANN025ALLOY	SPANN025ALUM	3131709351	9611901028
;	38mm / 1.5"	SPANN040ALLOY	SPANN040ALUM	3131709351	9611901028
	51mm / 2"	SPANN050ALLOY	SPANN050ALUM	3131709351	9611901029
(	63mm / 2.5"	SPANN065ALLOY	SPANN065ALUM	3131709351	9611901029
	76mm / 3"	SPANN080ALLOY	SPANN080ALUM	3131709351	9611901029
	101mm / 4"	SPANN100ALLOY	SPANN100ALUM		9611901029
	125mm / 5"		SPANN125ALUM		9611901030
	150mm / 6"		SPANN150ALUM		9611901030

# TUBE CLAMPS AND BRACKET SYSTEMS

	PLAIN INTERLOCKING	BOSSED INTERLOCKING	SADDLE DOUBLE BOLTED	LONG TANG
SIZE		P		D
12mm / 1/2"			CLAMP0154S	
18mm / 3/4"	CLAMP0204		CLAMP0204S	CLAMP0204L
25mm / 1"	CLAMP0254	CLAMP0254B	CLAMP0254S	CLAMP0254L
32mm / 1.25"	CLAMP0324	CLAMP0324B	CLAMP0324S	CLAMP0324L
38mm / 1.5"	CLAMP0404	CLAMP0404B	CLAMP0404S	CLAMP0404L
51mm / 2"	CLAMP0504	CLAMP0504B	CLAMP0504S	CLAMP0504L
63mm / 2.5"	CLAMP0654	CLAMP0654B	CLAMP0654S	CLAMP0654L
76mm/3"	CLAMP0804	CLAMP0804B	CLAMP0804S	CLAMP0804L
101mm / 4"	CLAMP1004	CLAMP1004B	CLAMP1004S	CLAMP1004L
125mm/5"			CLAMP1254S	CLAMP1254L
150mm/6"			CLAMP1504S	CLAMP1504L
200mm/8"			CLAMP2004S	
250mm/10"			CLAMP2504S	

# **OTHER CLAMPS ON REQUEST**











# PIPETITE®





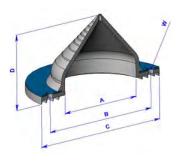




## **PIPETITE® STANDARD**



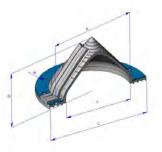
CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)
PT 0-35	0 - 25	30	57	70	52	6,2
PT 0-65	0 - 65	64	91	106	60	6,2
PT 0-95	0 - 95	100	128	147	78	6,2
PT 70-125	70 - 135	140	168	187	64	6,2
PT 100-150	100 - 180	180	213	237	84	6,2



PIPETITE® REBOOT®



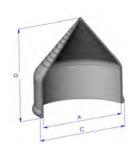
CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)
PT317120	0 - 65	64	91	106	60	6,2
PT317121	0 - 95	100	128	147	78	6,2
PT317122	70 - 135	140	168	187	64	6,2
PT317123	100 - 180	180	213	237	84	6,2
PT317128	125 - 275	280	313	337	137	6,2
PT317124	165 - 380	434	467	490	200	6,2



**PIPE N PIPE** 



CODE	SIZE	A (mm) B (	mm) C (mm) D (	mm) W (mm)
	25 x 0 - 20			
	65 x 0 - 50			
PT319010	100 x 0 - 75	90	102	112
PT319011	150 x 0 - 135	141	153	150
PT319012	200 x 0 - 180	197	209	191



PIPE N PIPE REBOOT®



CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)
PT319020	100 x 0 - 75	97		107		116



# **PIPETITE® ANCHORS**





CODE	TO SUIT	JAR QTY
PT317127	Concrete	100
PT317150	Panel walls & Concrete (2 piece)	100
PTCUTTER	Tool for cutting pipetites	



- Pre drilled holes
- 316 s/s polished support ring
- Self Sealing ridge pattern
- Pre moulded cut lines
- Silicone rubber, FDA certified.
- -60°C to 260°C temp rated
- W/mK = 0.25 Thermal Conductivity



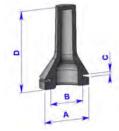
## PIPETITE® FLAT



CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)
	0 - 25	30	57	70	10	6,2
PT317202	0 - 65	64	91	106	10	6,2
PT317203	0 - 95	100	128	147	10	6,2
PT317204	0 - 135	140	168	187	10	6,2



# **PIPETITE® GROMMET (PNEUMATICS)**



CODE	TUBE SIZE	A (mm)	B (mm)	C (mm)	D (mm)
PT317135	6	22	16	1.2 - 3.0	33
PT317136	8	22	16	1.2 - 3.0	31
PT317137	10	22	16	1.2 - 3.0	32
PT317138	12	22	16	1.2 - 3.0	30



# PIPETITE® MULTI GROMMET



CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)	W (mm)
PT317139P	0 - 25	31	56,7	70	43	6,2



## **PIPETITE® GROMMET**

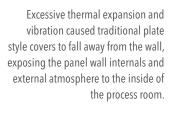


CODE	SIZE	A (mm)	B (mm)	C (mm)	D (mm)
PT317130	0 - 25	48	36	1.2 - 3.0	45
PT317131	0 - 65	82	70	1.2 - 3.0	57
PT317132	0 - 95	120	106	1.2 - 3.0	75
PT317133	70 - 135	160	146	1.2 - 3.0	61
PT314134	100 - 180	202	186	1.2 - 3.0	77



Before

After







Pipetite ReBoots installed Fully flexible and capable of absorbing the pipework movement without falling away from the wall. Self sealing ribbs mean no need for use of Silicone sealants.

# **GATHER QUICK COUPLINGS**





#### **DBG STANDARD**

The safe, robust and quickly detachable connection between hose and tube for almost all liquids and gaseous media. Double-shutoff, single shutoff or straight-through design variants in sizes between DN4 and DN 80, also in pharmaceutically compatible quality (Ra<0.8 $\mu$ m, CIP and SIP)!



#### **DBG CSP**

Flat-face sterile coupling/non-drip Pharma Conformity Ra < 0,8  $\mu m$  CIP and SIP-capable



DBG SV

Flat-face tank coupling/non-drip Twistlock









CONNECTIVITY LOGIC



## **CUSTOMER-ORIENTED SOLUTIONS**

Couplings for Covid-19 vaccine production
Customer Enquiry
Conceptual design
Offer to client
Production / assembly
Dispatch of components
5 Day turn around



To save even more time, connect up to 20 couplings simultaneously!

24 www.matrixps.com RETURN TO INDEX



# Fit to perform. Fit to last

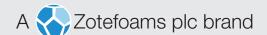


Unrivalled performance and minimal maintenance, year after year of a class-leading service life, make T-FIT® the most cost-effective pipe insulation solution for plant-wide installation in demanding, highly-controlled industrial, pharma and manufacturing environments.

T-FIT® Clean

**T-FIT®** Hygiene

**T-FIT®** Process





T-FIT® Process



PROPERTY		TEST ST	ANDARD		TYPICAL VA	LUE	
Material					ZOTEK® N E	350	
					Closed Cell Nylo	on Foam	
Service Temperature	See Notes Below*			-20 °C to +200 °C			
Thermal Conductivity							
Mean temperature of 25 °C		ISO 8	2201	0.0361 W/m.K			
Mean temperature of 170 °C		150 (	3301	0.0485 W/m.K			
Fungus Resistance	ASTM G21-15		Full test complete				
					No signs after 2	28 days	
Fire Certification							
Euroclass (Clad Product Only)		EN13	501-1		E, EL		
AS 1530	Gau	ge mm	Ignitability	Spread of fla	me Heat Evolved	Smoke Dev	
*25mm thickness result available upon request		5	0	0	0	3	
Integral Cladding					Alu-PET Comp	oosite	

<sup>\*</sup>These are extreme temperatures. For continuous use or advice on product specification with respect to condensation control please contact your local T-FIT® representative.

## PRODUCT INFORMATION

T-FIT® Process is manufactured from Zotefoams ZOTEK NB 50 closed cell Nylon foam.

The values provided in this Product Information Sheet represent data gathered from random samples of our production of T-FIT® Process foam and represent typical data. These are given to the best of our knowledge and should be considered as guidance only for selecting a suitable grade for a given application.



## T-FIT PROCESS INSULATING STRAIGHT

ISO 1127. 6.35mm Thick

	PRODUCT CODE	$\setminus$	SIZE	/	OD MM	
1	FPS021I06C000-9009		DN15		21,3	
I	FPS026I06C000-9010		DN20		26,9	
I	FPS033I06C000-9011		DN25		33,7	
1	FPS048I06C000-9012		DN40		48,3	
I	FPS060I06C000-9013		DN50		60,3	
1	FPS076I06C000-9014		DN65		76,1	
1	FPS088I06C000-9015		DN80		88,9	

DIN11850. 6.35mm Thick

PRODUCT CODE	<b>\</b>	SIZE	/	OD MM	V
TFPS023D06C000-9004		DN20		23	
TFPS029D06C000-9005		DN25		29	
TFPS036D06C000-9006		DN32		35	
TFPS041D06C000-9007		DN40		41	
TFPS053D06C000-9008		DN50		53	
TFPS070D06C000-9009		DN65		70	

**ASME BPE. 6.35mm Thick** 

PRODUCT CODE	SIZE	OD MM
	0.375"	9,53
TFPS012A06C000-9001	0.5"	12,7
TFPS019A06C000-9002	0.75"	19,05
TFPS025A06C000-9003	1.0"	25,4
TFPS038A06C000-9004	1.5"	38,1
TFPS050A06C000-9005	2.0"	50,8
TFPS063A06C000-9006	2.5"	63,5
TFPS076A06C000-9007	3.0"	76,2
TFPS101A06C000-9008	4.0"	101,6











**T-FIT®** Hygiene



#### PRODUCT INFORMATION

T-FIT® Hygiene is manufactured from Zotefoams ZOTEK® F43 HT closed cell PVDF foam.

The values provided in this Product Information Sheet represent data gathered from random samples of our production of T-FIT® Hygiene foam and represent typical data. These are given to the best of our knowledge and should be considered as guidance only for selecting a suitable grade for a given application.

			_		
PROPERTY	TEST STA	ANDARD	TY	PICAL VALU	E
Material			Ž	OTEK® F43 H	T
			Clos	ed Cell PVDF	Foam
Service Temperature	See Note:	s Below*	-8	0 °C to +145	°C
Thermal Conductivity					
Mean temperature of 25 °C	ISO 8301		0.0344 W/m.K		
Mean temperature of 50 °C			0.0370 W/m.K		
Mean temperature of 80 °C			(	0.0405 W/m.	K
Fire Certification					
Euroclass	EN135	501-1		C – s2, d0	
AS 1530	Gauge mm	Ignitability	Spread of flame	Heat Evolved	Smoke Dev
	5	0	0	0	1
	25	0	0	0	1
Water Vapour Transmission	ISO 1	1663		7250, µ Valu	9
Leachable Ions	ASTM	C-871		Pass	
Fungus Resistance	ASTM G	G21-15	Fu	III test comple	ete

No signs after 28 days

0.75"

1 0"

1.5"

2.0"

2.5"

3.0"

OD MM

12,7

19,05

25,4

38,1

50,8

63,5

76,2

101,6

## T-FIT PROCESS INSULATING STRAIGHT

**PRODUCT CODE** 

TFHS012A12U000-9001

TFHS019A12U000-9002

TFHS025A12U000-9003

TFHS038A12U000-9004

TFHS050A12U000-9005

TFHS063A12U000-9006

TFHS076A12U000-9007





## **ASME BPE. 6.35mm Thick**

PRODUCT CODE	SIZE	OD MM
TFHS012A06U000-9001	0.5"	12,7
TFHS019A06U000-9002	0.75"	19,05
TFHS025A06U000-9003	1.0"	25,4
TFHS038A06U000-9004	1.5"	38,1
TFHS050A06U000-9005	2.0"	50,8
TFHS063A06U000-9006	2.5"	63,5
TFHS076A06U000-9007	3.0"	76,2
TFHS101A06U000-9008	4.0"	101,6

ISO 1127. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
TFHS021I06U000-9009	DN15	21,3
TFHS026I06U000-9010	DN20	26,9
TFHS033I06U000-9011	DN25	33,7
TFHS048I06U000-9012	DN40	48,3
TFHS060I06U000-9013	DN50	60,3
TFHS076I06U000-9014	DN65	76,1
TFHS088I06U000-9015	DN80	88,9

TFHS012A06U000-9001	0.5"	12,7	
TFHS019A06U000-9002	0.75"	19,05	
TFHS025A06U000-9003	1.0"	25,4	
TFHS038A06U000-9004	1.5"	38,1	
TFHS050A06U000-9005	2.0"	50,8	
TFHS063A06U000-9006	2.5"	63,5	
TFHS076A06U000-9007	3.0"	76,2	
TFHS101A06U000-9008	4.0"	101,6	

PRODUCT CODE	SIZE	OD MM
TFHS021I06U000-9009	DN15	21,3
TFHS026I06U000-9010	DN20	26,9
TFHS033I06U000-9011	DN25	33,7
TFHS048I06U000-9012	DN40	48,3
TFHS060I06U000-9013	DN50	60,3
TFHS076I06U000-9014	DN65	76,1
TFHS088I06U000-9015	DN80	88,9

#### TFHS101A12U000-9008 4.0"

**ASME BPE. 12.70mm Thick** 

ISO 1127. 12.70mm Thick				
PRODUCT CODE	SIZE	OD MM		
TFHS021I12U000-9009	DN15	21,3		
TFHS026I12U000-9010	DN20	26,9		
TFHS033I12U000-9011	DN25	33,7		
TFHS048I12U000-9012	DN40	48,3		
TFHS060I12U000-9013	DN50	60,3		
TFHS076I12U000-9014	DN65	76,1		
TEHS088I12U000-9015	DN80	88.9		

### DIN11850. 6.35mm Thick

PRODUCT CODE	1	SIZE	OD MM	
TFHS023D06U000-9004		DN20-23	23	
TFHS029D06U000-9005		DN25-29	29	
TFHS035D06U000-9006		DN32-36	35	
TFHS041D06U000-9007		DN40-41	41	
TFHS053D06U000-9008		DN50-53	53	
TFHS070D06U000-9009		DN65-70	70	





 $<sup>{}^{\</sup>star} These \ are \ extreme \ temperatures. For continuous \ use \ or \ advice \ on \ product \ specification \ with \ respect \ to$ condensation control please contact your local T-FIT  $^{\rm @}$  representative.



PROPERTY	TEST	STANDARD		TYPICAL V	ALUE	
Material	`		Ma	nufactured fr	om an FDA	
			Com	pliant Kynar®	based resir	
Service Temperature	See N	lotes below*		-80 °C to +1	60 °C	
Thermal Conductivity	Thermal Conductivity		ty	Thermal Cond	uctivity	
Mean temperature of 0 °C Mean temperature of 25 °C Mean temperature of 80 °C	l:	SO 8301		0.0314 W/ 0.0347 W/ 0.0434 W/	m.K	
Fire Certification						
Euroclass UL723 / ASTM E84	EN13501-1 B - s1, di Flaming Spread Index @ 25mm 5 Smoke Developed Index @ 25mm 45			0		
AS 1530	Thermal Conductivi  C C C S C ISO 8301  EN13501-1 Flaming Spread Index @ Smoke Developed Index @ Gauge mm   Ignitability S Sion ISO 1663 VDI 2083-P17 ISO 14644-8** ASTM G21-15	.S 1530 Gauge mm Ignitability Spread of fla		Spread of flame	Heat Evolved	Smoke Dev
	5	0	0	0	1	
Water Vapour Transmission			0	0 6500, μ V	0/1 alue	
Outgassing	VDI	2083-P17		8.86 µg	/g	
ISO-AMC class	ISO	14644-8**		-10		
Fungus Resistance	AST	ГМ G21-15		Full test con	plete	
			1	No signs after	28 days	
Factory Mutual 4910 Cleanroom Materials Flammability Test Protocol				Specification	Tested	









<sup>\*</sup>These are extreme temperatures. For continuous use or advice on product specification with respect to condensation control please contact your local T-FIT® representative.

## PRODUCT INFORMATION

T-FIT® Clean is manufactured from Zotefoams ZOTEK® F42 HT LS fine, closed cell foam, the only foam product to be specification tested to FM4910 Clean Room Materials Protocol. The values provided in this Product Information Sheet represent data gathered from random samples of our production of T-FIT® Clean foam and represent typical data. These are given to the best of our knowledge and should be considered as guidance only for selecting a suitable grade for a given application.

## **T-FIT CLEAN STRAIGHT**

ISO 1127. 6.35mm Thick

PRODUCT CODE	<b>\</b>	SIZE	OD MM	
ZAFCK06381-EU		DN6	6,35	
ZAFCK06382-EU		DN8	9,53	
ZAFCK06500		DN10	12,7	
ZAFCK06501		DN15	19,05	
ZAFCK06502		DN20	25,4	
ZAFCK06457		DN25	38,1	
ZAFCK06503		DN32	50,8	
ZAFCK06564		DN40	63,5	
ZAFCK06835		DN50	76,2	
ZAFCK06388-EU		DN65	88,9	
ZAFCK06525		DN80	101.6	

## DIN11850. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM	
ZAFCK06381-D	DN8	10	_
ZAFCK06382-D	DN10	13	
ZAFCK06383-D	DN15	19	
ZAFCK06888	DN20	23	
ZAFCK06889	DN25	29	
ZAFCK06890	DN32	35	
ZAFCK06503-D	DN40	41	
ZAFCK06891	DN50	53	
ZAFCK06297	DN65	70	
ZAFCK06892	DN80	85	

ASME BPE. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
ZAFCK99930	1/4"	6,35
ZAFCK06381	3/8"	9,53
ZAFCK06382	1/2"	12,7
ZAFCK06383	3/4"	19,05
ZAFCK06384	1"	25,4
ZAFCK06385	11/2"	38,1
ZAFCK06386	2"	50,8
ZAFCK06387	21/2"	63,5
ZAFCK06388	3"	76,2
ZAFCK06787	31/2"	88,9
ZAFCK06522	4"	101,6

## **T-FIT CLEAN ELBOW**

ISO 1127. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
ZAFCK05880-EU	DN6	6,35
ZAFCK05814-EU	DN8	9,53
ZAFCK06512	DN10	12,7
ZAFCK06513	DN15	19,05
ZAFCK06582	DN20	25,4
ZAFCK06515	DN25	38,1
ZAFCK06516	DN32	50,8
ZAFCK06517	DN40	63,5
ZAFCK06518	DN50	76,2
ZAFCK05899-EU	DN65	88,9
7/LCKU4814	DN80	101.6

DIN11850. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
ZAFCK05880-D	DN8	10
ZAFCK05814-D	DN¹0	13
ZAFCK05815-D	DN15	19
ZAFCK06874	DN20	23
ZAFCK06875	DN25	29
ZAFCK06876	DN32	35
ZAFCK06516-D	DN40	41
ZAFCK06877	DN50	53
ZAFCK05238	DN65	70
ZAFCK06878-D	DN80	85

ASME BPE. 6.35mm Thick

ASME BPE. 0.35MM INICK					
PRODUCT CODE	SIZE	OD MM			
ZAFCK05880	3/8"	9,53			
ZAFCK05814	1/2"	12,7			
ZAFCK05815	3/4"	19,05			
ZAFCK05816	1"	25,4			
ZAFCK05615	11/2"	38,1			
ZAFCK05616	2"	50,8			
ZAFCK05898	21/2"	63,5			
ZAFCK05899	3"	76,2			
ZAFCK06878	31/2"	88,9			
ZAFCK06523	4"	101,6			

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<sup>\*\*</sup>Based on independent testing and commentary, full report available on request.



## **T-FIT CLEAN TEE PIECES**

#### ASME BPE. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
ZAFCK05900	3/8"	9,53
ZAFCK05743	1/2"	12,7
ZAFCK05744	3/4"	19,05
ZAFCK05745	1"	25,4
ZAFCK05746	11/2"	38,1
ZAFCK05747	2"	50,8
ZAFCK05901	21/2"	63,5
ZAFCK05902	3"	76,2

#### DIN11850. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM
ZAFCK05900-D	DN8	10
ZAFCK05743-D	DN10	13
ZAFCK05744-D	DN15	19
ZAFCK06879	DN20	23
ZAFCK06880	DN25	29
ZAFCK06881	DN32	35
ZAFCK06509-D	DN40	41
ZAFCK06882	DN50	53
ZAFCK06883	DN65	70

#### ISO 1127. 6.35mm Thick

PRODUCT CODE	SIZE	OD MM	
ZAFCK05900-EU	DN6	6,35	
ZAFCK05743-EU	DN8	9,53	
ZAFCK06506	DN10	12,7	
ZAFCK06507	DN15	19,05	
ZAFCK06583	DN20	25,4	
ZAFCK06508	DN25	38,1	
ZAFCK06509	DN32	50,8	
ZAFCK06510	DN40	63,5	
ZAFCK06511	DN50	76,2	
ZAFCK05902-EU	DN65	88,9	

## **T-FIT ACCESSORIES**

## Process Tape (Silver Foil)

PRODUCT CODE	LENGTH	WIDTH
2TFPALU	50m	25mm

## PVDF Adhesive Tape (Tee Clean & Hygiene)

PRODUCT CODE	LENGTH	WIDTH
ZAXX9164	54.8m	25.4mm

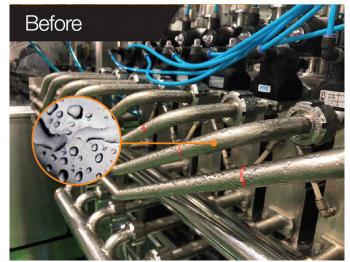
This adhesive tape product is designed specifically for T-FIT® Installations. Comprised of a PVDF polymer film and a high-performance pressure sensitive adhesive. Especially designed for chemical and flammability resistance.













# LKB BUTTERFLY VALVES





		<b>304</b> s/s	316 s/s	316 s/s	316 s/s	316 s/s	316 s/s
	SIZE	EPDM	EPDM	HNBR	SILICONE	VITON	PFA
	25mm / 1"	9611444500	9611444501	9612650206	9611442191	9611444581	Not Available
3	8mm / 1.5"	9611444510	9611444511	9612650207	9611442211	9611444591	9612943214
	51mm / 2"	9611444520	9611444521	9612650208	9611442221	9611444601	9612943215
6	3mm / 2.5"	9611444530	9611444531	9612650209	9611442231	9611444611	9612943216
	76mm / 3"	9611444540	9611444541	9612650210	9611442241	9611444621	9612943217
1	01mm / 4"	9611414550	9611414551	9612650211	9611412261	9611414631	9612943218
1	25mm / 5"	9612075045**	9612075046**	9613419017**	9612075044**	9612075048**	Not Available
1	52mm / 6"	9611414571	9611414572	9612935204	9612935202	9611414652	Not Available

<sup>\*\*</sup> Available in Metric DN dimensions only

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LKB-F

	<b>304</b> s/s	316 s/s	316 s/s	316 s/s	316 s/s
SIZE	EPDM	EPDM	HNBR	SILICONE	VITON
25mm / 1"	9612400031	9612402731	9612402761	9612402741	9612402751
38mm / 1.5"	9612400032	9612402732	9612402762	9612402742	9612402752
51mm / 2"	9612400033	9612402733	9612402763	9612402743	9612402753
63mm / 2.5"	9612400034	9612402734	9612402764	9612402744	9612402754
76mm / 3"	9612400035	9612402735	9612402765	9612402745	9612402755
101mm / 4"	9612400036	9612402736	9612402766	9612402746	9612402756
125mm / 5"	9612400008**	9612402708**	Not Available	9612402718**	9612402728**
152mm / 6"	9612400009**	9612402709**	Not Available	9612402719**	9612402729**

<sup>\*\*</sup> Available in Metric DN dimensions only

#### LKB CLAMP



	304 s/s	i	316 s/s	
SIZE	EPDM		EPDM	V
25mm / 1"	96114449	05	9611445155	
38mm / 1.5"	96114449	715	9611445165	
51mm / 2"	96114449	25	9611445175	
63mm / 2.5"	96114449	35	9611445185	
76mm / 3"	96114449	P45	9611445195	
101mm / 4"	96114149	55	9611415205	
125mm / 5"	Not Availa	ble	Not Available	
152mm / 6"	0613/13/1/	1/11	9613434444	

# LKB ULTRAPURE CLAMP



	ASIVIE BPE.	ka v.5um	ASIVIE BPE. Ra	O.4um EP
SIZE	EPDM	VITON	EPDM	VITON
25mm / 1"	9613858301	9614051913	9613858207	9614051907
38mm / 1.5"	9613858302	9614051914	9613585208	9614051908
51mm / 2"	9613858303	9614051915	9613312209	9614051909
63mm / 2.5"	9613858304	9614051916	9613039210	9614051910
76mm / 3"	9613858305	9614051917	9612766211	9614051911
101mm / 4"	9613858306	9614051918	9612493212	9614051912





USP Class IV & FDA certification Ultrapure valves supplied with Q Doc.

### LKB ULTRAPURE



	ASME BPE. Ra 0.5um		ASME BPE. F	Ra 0.4um EP
SIZE	EPDM	VITON	EPDM	VITON
25mm / 1"	9613858201	9614051901	9613858207	9614051907
38mm / 1.5"	9613858202	9614051902	9613858208	9614051908
51mm / 2"	9613858203	9614051903	9613858209	9614051909
63mm / 2.5"	9613858204	9614051904	9613858210	9614051910
76mm / 3"	9613858205	9614051905	9613858211	9614051911
101mm / 4"	9613858206	9614051906	9613858212	9614051912

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# **BUTTERFLY VALVE HANDLES**

	LKB Handle 2 Position	LKB Handle 4 Position	LKB Regulating handle 90 Deg	LKB Handle 2 Position to suit indication unit	LKB Multi Position handle Short (150mm)	LKB Multi Position handle Long (200mm)
SIZE						The state of the s
25mm / 1"	9612045001	9612045002	9612047401	9612047501	9612592804	
38mm / 1.5"	9612045001	9612045002	9612047401	9612047501	9612592804	
51mm / 2"	9612045001	9612045002	9612047401	9612047501	9612592804	
63mm / 2.5"	9612045001	9612045002	9612047401	9612047501	9612592804	
76mm/3"	9612045101	9612045102	9612047402	9612047502	9612592805	
101mm / 4"	9612045901	9612045902	9612047403	9612047503	9612592806	9612592803
125mm / 5"		9612078201				
150mm / 6"		9612079101				

# **ACTUATOR MOUNTING BRACKETS**





9611416470 9611416480 9611416640

25 - 63mm

76 - 101mm

150mm

#### MOUNTING BRACKET t/s Ø133mm Actuator



9612285301 9612285401

#### MOUNTING BRACKET t/s Unique Control actuator



25 - 63mm 9614090101 76mm 9614090103 101mm 9614090104

# **QUARTER TURN ACTUATORS**

#### LKLA



		85mm Dia LKLA			133mm Dia LKLA	
SIZE	N/C	N/O	AIR/AIR	N/C	N/O	AIR/AIR
25-63mm	9611416301	9611416304	9611417491		•	
76mm	9611416302	9611416305	9611417492			
101mm	9611416306	9611416307	9611417493	9612271306	9612271307	9612271308
125mm			9611417502	9612271311	9612271312	9612271313
150mm			9611417500	9612271316	9612271317	9612271318

SIZE

100-125mm

150mm

## LKLA-T



		85mm Dia LKLA			133mm Dia LKLA	
SIZE	N/C	N/O	AIR/AIR	N/C	N/O	AIR/AIR
25-63mm	9612194002	9612194005	9612194102			
76mm	9612194003	9612194006	9612194103			
101mm	9612194007	9612194008	9612194104	9612374906	9612374907	9612374908
125mm			9612194202	9612374911	9612374912	9612374913
150mm			9612194201	9612374916	9612374917	9612374918

UNIQUE CONTROL Act.

FUNCTION	Digital 24V DC	AS-Interface v2.1, 31 node	AS-Interface v3.0, 62 node
C2 / NC	9614067209	9614067201	9614067221
C2 / NO	9614067210	9614067202	9614067222

<sup>\*</sup> Actuator only. Valve supplied seperatly.

# **NON RETURN VALVES**



LKC-2 SANITARY NRV 304 s/s LKC-2 SANITARY NRV 316 s/s LKC-Ultra Pure NRV 316 s/s c/w Q Doc. (3.1B) 0.8um in/out LKC-Ultra Pure NRV 316L s/s c/w Q Doc (3.1B) 0.5um in/0.8um out



9612220001

9612220002

9612220003



9612220007

9612220008

9612220009



9613484301

9613484302

9613484303



9613481901

9613481902

9613481903



# 63mm/2.5" 9612220004 9612220010 9613484304 9613481904 76mm/3" 9612220005 9612220011 9613484305 9613481905 101mm/4" 9612220006 9612220012 9613484306 9613481906

# SPRING FREE NON RETURN VALVES

# EDF NON RETURN VALVE



SM	Ė	ВP	E

SIZE

25mm / 1'

38mm / 1.5"

51mm / 2"

1	2mm / 1/2"	E1 01-2TT1	610MMN1
2	0mm / 3/4"	E1 03-4TT1	610MMN1
:	25mm / 1"	E1 01-0TT1	610MMN1
3	8mm / 1.5"	E1 11-2TT1	610MMN1
	51mm / 2"	E1 02-0TT1	610MMN1
6	3mm / 2.5"	E1 21-2TT1	610MMN1
	76mm / 3"	E1 03-0TT1	610MMN1
1	01mm / 4"	E1 04-0TT1	610MMN1



#### MATERIALS

Body valve/Flanges : AISI304, **AISI316L\*** 

Shutter : **DUPLEX** 

#### SURFACE FINISHING

 Internal
 : Ra≤0.4EP, Ra≤0.4, Ra≤0.8EP, Ra≤0.8\*

 External
 : Ra≤0.4EP, Ra≤0.4, Ra≤0.8EP, Ra≤0.8, Ra≤3.2\*

#### ELASTOMERS

EPDM, NBR\*, FPM (Viton), Silicone, FEP

## TECHINAL DATA

The differential pressure required to open the valve when installed in a vertical pipe is about 6 kPa (0.06bar). During operation the pressure difference to keep open the valve is approximately 3 kPa (0.02 bar)

Pressure Max : 1600kPa (16 Bar)

Temperature Max : 220 C
Temperature Min : -10 C

## **OPTIONAL CONNECTION STANDARDS**

Welding : **DIN 11850\***, DIN 11851, **ASME-BPE\***, ISO 1127, SMS

Tri-Clamp : ASME-BPE, ISO1127, SMS, DIN32676

#### EDF NON RETURN VALVE



#### SIZE DIN11850

SIZE DIN I 1000		
DN10	E10010TT1610MMN1	
DN15	E10015TT1610MMN1	
DN25	E10025TT1610MMN2	
DN40	E10040TT1610MMN3	
DN50	E10050TT1610MMN4	
DN65	E10065TT1610MMN5	
DN80	E10080TT1610MMN6	
DN100	E10100TT1610MMN7	

#### Full PTFE Version Suitable for corrosive and high purity fluids



Self draining eccentric tri-clamp version



Yev W Version Clamped Body



Pharmaball



<sup>\*</sup> Standard build option. All else on request.



# PRESSURE & VACUUM RELIEF VALVE

In terms of the EC pressure equipment directive 97/23/EC, vacuum pressure relief valves are not considered as security devices and do not have any type of examination certificates.

4" valve with clamp connection, fitted with manual forced opening device

# VACUUM

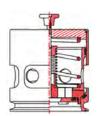
30 mbar

## PRESSURE RELIEF

0.2 to 2 bar, according to spring

No jamming thanks to the PTFE plug and silicone seal





PRESS	URE			
BAR	PSI	2" CLAMP	2 1/2" CLAMP	4" CLAMP
0,2	2,8	TU051A16102	TU063A16102	TU101A16102
0,5	7			TU101A16105
0,7	9,8	TU051A16107	TU063A16107	
1	14	TU051A16110	TU063A16110	TU101A16110
1,2	16,8			
1,3	18,2			TU101A16113
1,4	19,6	TU051A16114	TU063A16114	
1,7	23,8			TU101A16117
1,8	25,2	TU051A16118	TU063A16118	
2	28			TU101A16120
2,5	35	TU051A16125	TU063A16125	
2,75	38,5			TU101A16127
3	42			
VAC	UUM			
0,03	0,42	Not Variable	Not Variable	Not Variable

## DCX3 ADJUSTABLE PRESSURE RELIEF VALVE WITH AIR OVERRIDE

				BODY TYP	E			L		2	
		L	1	T	_/	Х					400
12mm / 1/2"	NUC	)12K111 <mark>00</mark>		NU012K211	00	NU012K	31100				
19mm / 3/4"	NUC	)19K111 <mark>00</mark>		NU019K211	00	NU019K	31100				- 11
25mm / 1"	BUC	)25K141 <mark>00</mark>		BU025K241	00	BU025K	34100	т	-	2	- 11
38mm / 1.5"	BUC	)38K141 <mark>00</mark>		BU038K241	00	BU038K	34100			$\mathcal{O}$	- 11
51mm / 2"	BUC	)51K141 <mark>00</mark>		BU051K241	00	BU051K	34100				- 5
63mm / 2.5"	BUC	063K141 <mark>00</mark>		BU063K241	00	BU063K	34100	×	-	3	7
76mm / 3"	BUC	76K141 <mark>00</mark>		BU076K241	00	BU076K	34100	- 4		0	-53
101mm / 4"	BU1	I01K141 <mark>00</mark>		BU101K241	00	BU101K	34100				
		Set	t <mark>00</mark> Value	with press	ure code	below		. (			
CODE	10	15	20	25	30	35	40	45	50		0
Set Pressure	1	1,5	2	2,5	3	3,5	4	4,5	5	BAR	Ĭ
CODE	55	60	65	70	75	80	85	90	95	99	
Set Pressure	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	BAR

## **PRESSURE & VACUUM RELIEF VALVE**



# **SANITARY VALVES**



## **UNIQUE SSV**









#### AVAILABLE IN SIZES

25mm, 38mm, 51mm, 63mm, 76mm, 101mm, 125mm, 150mm



## TECHNICAL DATA

Max. Product Pressure

(depending on valve specifications)

Min. Product Pressure

Temperature Range

: Full Vacuum

: -10C to +140C (EPDM)

: 1000 kPa (10 bar)

Air Pressure : 500 - 700 kPa (5 to 7 bar)

Standard Plug Setup





**Aseptic Plug Setup** 



**Tank Outlet Valves** 









## **UNIQUE SSSV**

## **OPTIONS**

Normally Open Normally Closed

## SIZE RANGE

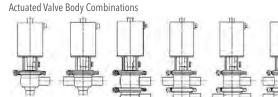
1/2" (12mm) 3/4" (18mm)

## ELASTOMERS

EPDM (std), FPM, HNBR

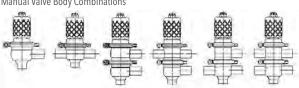






Manual Valve Body Combinations

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# **SANITARY VALVES**

#### LKAP 1" SINGLE SEAT VALVE



SIZE	CODE	BODY	POSITION	ELASTOMERS
25mm	9612413801	20	N/C	EPDM
25mm	9612413802	20	N/C	NBR
25mm	9612413803	20	N/C	EPDM
25mm	9612413804	20	N/C	NBR
25mm	9612413805	20	N/O	EPDM
25mm	9612413806	20	N/O	NBR

CDV CANITADV DALI

## **SBV SANITARY BALL VALVES**

CDV CANITADY DALL

SRV SANITARY RALL

The Alfa Laval Sanitary Ball Valve (SBV) is a hygienic ball valve designed with a bore diameter the same size as the pipeline diameter. The full-bore design with zero flow restriction and minimum pressure drop makes the SBV the optimum choice to handle high-viscosity or particulate liquids. It is also ideal for use in pigging systems to prevent product waste and optimize plant performance.

	VALVE MANUAL	VALVE ACTUATED	VALVE ACTUATED Prepared for Thinktop		
SIZE			99		
1"	9612644001	9612644013	9612644019		
1 1/2"	9612644002	9612644014	9612644020		
2"	9612644003	9612644015	9612644021		
2 1/2"	9612644004	9612644016	9612644022		
3"	9612644005	9612644017	9612644023		
4"	9612644006	9612644018	9612644024		



# SCANDI BREW MINI FLOW VALVE

#### OPTIONS

Manual

Pneumatic Actuation

## SIZE RANGE

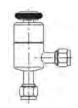
6mm - 8mm Compression fittings

## **ELASTOMERS**

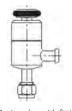
EPDM (std), PTFE

#### MAX PRODUCT PRESSURE

6 Bar



Drain valve with fittings



Drain valve with fittings/Clip-On

#### 6 / 8mm SINGLE SEAT GAS & LIQUID VALVES



# SANITARY REGULATING VALVES



SIZE	CODE	m3/Hr
38mm	*9614291601	11
38mm	9613320115	14
38mm	9613320116	44
51mm	9613320117	73
63mm	9613320118	106
76mm	9613320119	171
101mm	9613320120	246

UNIQUE SSV / SSV-RF MANUAL REGULATING VALVE



	SIZE	Kv value, m3/Hr
	25mm	1, 1-5, 1-9, 2-7, 3-2, 6
	38mm	14, 16, 25, 44
	51mm	9, 34, 52, 75
	63.5mm	27, 107
	76.1mm	59, 101, 172
	101.6mm	125, 164, 246

UNIQUE RV-ST REGULATING VALVE



UNIQUE RV-P
<b>ELECTRO PNEUMATIC</b>
MODULATING VALVE
(n/c)



UNIQUE RV-P ELECTRO PNEUMATIC ASEPTIC MODULATING VALVE (n/c)

UNIQUE RV-P ELECTRO
PNEUMATIC ASEPTIC
MODULATING VALVE
(n/o)







SIZE	-	200		-	
38mm Kv 0.5E	9615223111	9615223101	9615223311	9615223301	
38mm Kv 1 E	9615223112	9615223102	9615223312	9615223302	
38mm Kv 2 E	9615223113	9615223103	9615223313	9615223303	
38mm Kv 4 E	9615223114	9615223104	9615223314	9615223304	
38mm Kv 8 E	9615223115	9615223105	9615223315	9615223305	
38mm Kv 16 E	9615223116	9615223106	9615223316	9615223306	
51mm Kv 25	9010001806	8010001808			
51mm Kv 32 L	9615223117	9615223107	9615223317	9615223307	
63mm Kv 40	8010001811	8010001812			
63mm Kv 64 L	9615223118	9615223108	9615223318	9615223308	
76mm Kv 75 L	9615223119	9615223109	9615223319	9615223309	
101mm Kv 110 L	9615223120	9615223110	9615223320	9615223310	

## **UNIQUE RV-P SELECTION CHART**

## PRESSURE DROP CALCULATION

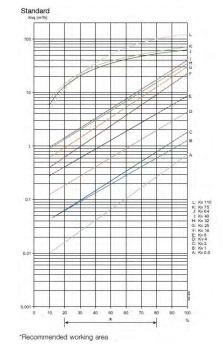
The Kv designation is the flow rate in m3/h at a pressure drop of 1 bar when the valve is fully open (water at 20°C or similar liquids). To select the Kv value it is necessary to calculate the Kvq value using the following formula:

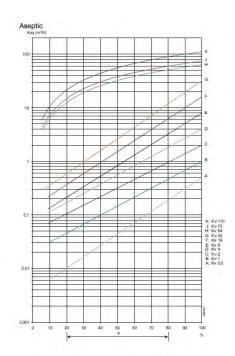
$$Kv_q = \frac{Q}{\sqrt{\Delta p}}$$

#### WHERE

Kvq : Kv Value at specific flow and specific pressure

Q : drop Flow Rate (m3/Hr)  $\Delta P$  : Pressure drop over valve (bar)







## **SANITARY REGULATING VALVES**

# SIZE CODE Kv 23 9612305501 Kv 2 / 15 9612305503 Kv 7 9612305517

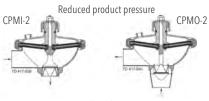




SIZE	CODE	
Kv 23	9612305502	
Kv 2 / 15	9612305504	
Kv 9	9612305518	

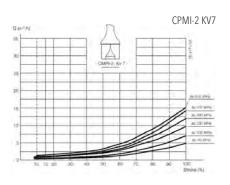
#### **CPM-O PRESSURE REGULATING VALVE**

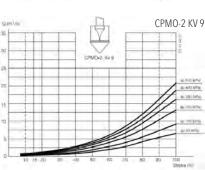


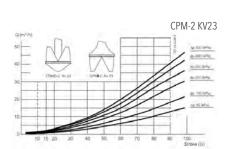


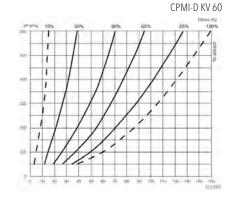


Winester	125		CPM-2 KV 2/15
28	n nin		TD 417-062
an .	-	1	1/1
13	DPMD ZWN/15	DPML2 AV2/16	2/1/
		1 1-1	111/2
20	1		11/1/
15	1		11/1/
10		1 1/1	11/1/1
5	1 1		
	10 16 20 30	40 50 60 7	80 90 100 Empire /W











## SCANDI BREW CO2 REGULATING VALVES

The SCANDI BREW® CO2 House valve is to be used in combination with the Anti Vacuum Valve. The purpose of the valve is to control the working pressure in tanks during increased pressure.

SIZE	Pressure range	
51mm	0.2-3 Bar	
76mm	0.2-3 Bar	



**SCANDI BREW** 

The Alfa Laval SB Pressure Exhaust Valve is a regulating valve that automatically reduces the working pressure in brewery, food, dairy and beverage process tanks as the pressure in the vessel increases.

SIZE	Pressure range
38mm	1-4 Bar
51mm	0.5-4 Bar



**SCANDI BREW** 



Combined gas escape/supply valve to be used in tank top systems and other applications for easy gas flow, allowing venting as well as pressurizing of vessel through the valve. Partly-closed for CIP liquid to be cleanable and self-draining.

#### WORKING PRINCIPLE

The internal polypropylene valve body is force opened by a stainless steel spring, thus allowing full gas capacity through the valve in both directions. By introducing CIP flow against the spring force, the internal valve body will be moved to a closed position.

The CIP liquid will close the valve but a special drilling of the valve body ensures cleaning of all valve parts. Depending on valve size, this CIP flow is approx. 800-900 l/h.

SIZE	Flow (m3/hr)
DN25 / 1"	25
DN40 / 1.5"	50
DN50 / 2"	150
DN65 / 2.5"	250
DN80 / 3"	450
DN100 / 4"	600



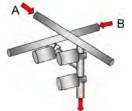
## MIXPROOF PRINCIPLES



Flow Plate

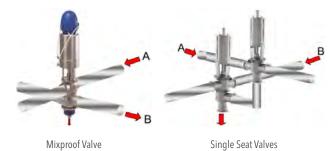
**Butterfly Valves** 







**DOUBLE BLOCK AND BLEED** 







## **SMP-BC DOUBLE SEAL MIXPROOF VALVES**

#### THE BASIC CHOICE IN MIXPROOF VALVES

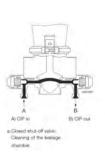
SMP-BC is a sanitary pneumatic seat valve, designed for safety and leak detection when two different products flow through only one valve. The valve is often used as a part in CIP return lines or other systems not experiencing pressure spikes offering leakage detection for greater safety.

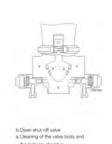
#### **WORKING PRINCIPLE**

- SMP-BC is remote-controlled by means of compressed air. The valve is a normally closed (NC) valve.
- The valve is fitted with two small pneumatic normally open (NO) valves, a detecting valve and a CIP-valve.
- The valve plug (the upper plug in a change-over valve) has two seals, forming a leakage chamber under atmospheric pressure between them. Leaking product flows into the leakage chamber and is discharged through the detecting valve. SMP-BC can be cleaned by CIP by supplying compressed air to the actuator (see fig. 1). During cleaning of the valve, flow pattern against the closing direction of the valve plug makes SMP-BC insensitive to water hammer.

#### SMP-BCA ASEPTIC Version Available







		<u></u>
SIZE	20	30
38mm	9612364801	9612364811
51mm	9612364802	9612364812
63mm	9612364803	9612364813
76mm	9612364804	9612364814
101mm	9612364805	9612364815





## **UNIQUE MIXPROOF VALVES**

The Unique Mixproof Valve is designed with user flexibility in mind. The customer can choose additional options as required individually; for example higher hygiene demands or higher resistance against physically tough conditions.

Unique is remote-controlled by means of compressed air. The valve is a normally closed (NC) valve.

The valve has two independent plug seals, forming a leakage chamber between them under atmospheric pressure during every working condition. In case of rare accidental leaking of product, this will flow into the leakage chamber and be discharged through the leakage outlet. When the valve is open, the leakage chamber is closed. The product can then flow from one line to the other.

The valve can be cleaned and water hammer protected to any level according to the needs in the specific process (see next page). There is virtually no spillage of product when operating the valve.

The Unique Mixproof Valve from Alfa Laval is the latest in Mixproof technology. Offering complete process flexibility, built to your requirements.

#### **AVAILABLE IN SIZES**

38mm, 51mm, 63mm, 76mm, 101mm, 125mm, 150mm

#### MIXED BODY SIZES

i.e.: 101mm lower body / 51mm Upper body

#### BALANCED OR UN-BALANCED PLUG

You can choose to have a balanced lower plug You can choose to have a balanced Upper plug You can choose to have Both Upper & Lower plugs balanced. Or both Unbalanced.

#### INDEPENDENT SEAT LIFT

You can choose to have seat lift of the Lower plug only You can choose to have seat lift of the Upper plug only You can choose to have seat lift of both Upper & Lower plugs. Or no seat lift at all.

#### **SPIRAL CLEAN**

The unique Spiral clean system can be incorporated on the upper or lower plugs It can also be incorporated between the plugs in the leakage chamber.

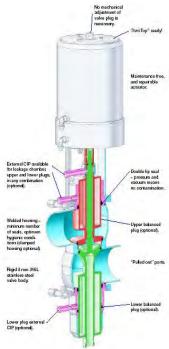
#### **ELASTOMERS OPTIONS**

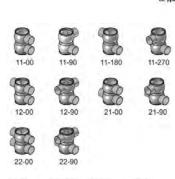
TANK VALVE

(Unique HT)

EPDM, FPM, HNBR, NBR











121-00



121-90





221-00



221-90





212-00





# Tube Connection Tank Flange connection

**ULTRAPURE MIXPROOF VALVE** 

(Unique HT)

## LARGE PARTICULATE VALVE (Unique LP) Upto 45mm pieces or high viscosity.



**ASEPTIC MIXPROOF VALVE** 

Matrix Process Solution 39

## **DIAPHRAGM VALVES**



The Alfa Laval Unique DV-ST UltraPure Diaphragm Valve is an aseptic diaphragm valve used to shut off, divert and/or regulate the flow of fluids through hygienic, high-purity and aseptic processing lines.

The Alfa Laval Unique DV-ST UltraPure diaphragm valve has a modular design that consists of a valve body, diaphragm, and either a handle for manual operation or an actuator for pneumatic operation. It can be designed to suit any application.

The DV-ST UltraPure diaphragm valve can be fitted with sensing and control units from an extensive range. Options include control units that suit AS-Interface, IO-Link and digital operating platforms.

The diaphragms are available as soft elastomer (EPDM) as well as hard elastomers (PTFE/EPDM and TFM/EPDM).

Alfa Laval DV-ST UltraPure valve bodies are available in cast, forged, and block options to suit the most demanding applications. A choice of surface finishes and connection types are also available. For critical applications with corrosive media, special alloys such as Hastelloy, duplex, and AL-6XN materials in block design are available upon request.

**T-BLOCK** 







TANDEM

TANK OUTLET-BLOCK



SS/SS

2 WAY



C/SS



SS/SL



**MULTI-PORT** 





Temperature recommendation °C

Documentation

DESCRIPTION	MIN	MAX	Max Steam	FDA	USP	TSE	AVAILABLE SIZES	AVAILAE	BLE DIAPHRAGM CONNE	CTIONS
EPDM	-40°C	130°C	150°C	Χ	Х	Χ	DN 8 - 100	DN 8 - 20	DN 25 - 100	
PTFE/EPDM	-5°C	175°C	150°C	Χ	Χ	Χ	DN 15 - 100			DN 15 - 100
TFM/EPDM	-5°C	175°C	150°C	Χ	Χ	Χ	DN 8 - 100	DN 8 - 10		DN 15 - 100







# Alfa Laval ThinkTop® Rethought





www.alfalaval.com/thinktop

## **THINKTOP®**



The compact Alfa Laval ThinkTop V50 and V70 are the second-generation of the leading sensing and control units for hygienic valves. It ensures unmatched control of all Alfa Laval valves used in the dairy, food, beverage, brewery and pharmaceutical industries.

#### Intuitive, intelligent hygienic valve control.

- Fast, intuitive setup takes place in seconds
- Smart control with 24/7 self-diagnostics
- 360° LED visual status indication, visible from any direction
- Built-to-last waterproof design withstands vibration and thermal expansion
- Fastest ever burst seat cleaning reduces water consumption by up to 90%

ThinkTop	V50
Digita	<b>PNP</b>
(6mm - 24	VDC)

CODE	SOL	ТУРЕ	MAIN ENTRY
9615400401	0		Cable gland
9615400403	1	3/2	Cable gland
9615400402	0		M12 plug
9615400404	1	3/2	M12 plug

ThinkTop V50 AS-Interface v2.1, 31 node (6mm - 29.5 - 31.6 VDC)

CODE	SOL	ТУРЕ	MAIN EN	ITRY
9615400407	0		Cable gl	and
9615400409	1	3/2	Cable gl	and
9615400408	0		M12 pl	ug
9615400410	1	3/2	M12 pl	ug

### THINKTOP® V50



ThinkTop V50 AS-Interface v3.0, 62 node (6mm - 29.5 - 31.6 VDC)

CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400413	0		Cable gland
9615400415	1	3/2	Cable gland
9615400414	0		M12 plug
9615400416	1	3/2	M12 plug

ThinkTop V50 Digital IO-Link (6mm - 24 VDC)

CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400419	0		M12 plug
9615400420	1	3/2	M12 plug

#### THINKTOP® V70



ThinkTop V70 Digital PNP (6mm - 24 VDC)

CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400001	0		Cable gland
9615400003	1	3/2	Cable gland
9615400007	2	3/2	Cable gland
9615400011	3	3/2	Cable gland
9615400015	1	5/2	Cable gland
9615400002	0		M12 plug
9615400004	1	3/2	M12 plug
9615400008	2	3/2	M12 plug
9615400012	3	3/2	M12 plug
9615400016	1	5/2	M12 plug

ThinkTop V70 AS-Interface v2.1, 31 node (6mm - 29.5 - 31.6 VDC)

CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400101	0		Cable gland
9615400103	1	3/2	Cable gland
9615400107	2	3/2	Cable gland
9615400111	3	3/2	Cable gland
9615400115	1	5/2	Cable gland
9615400102	0		M12 plug
9615400104	1	3/2	M12 plug
9615400108	2	3/2	M12 plug
9615400112	3	3/2	M12 plug
9615400116	1	5/2	M12 plug





#### THINKTOP® V70

CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400201	0		Cable gland
9615400203	1	3/2	Cable gland
9615400207	2	3/2	Cable gland
9615400211	3	3/2	Cable gland
9615400215	1	5/2	Cable gland
9615400202	0		M12 plug
9615400204	1	3/2	M12 plug
9615400208	2	3/2	M12 plug
9615400212	3	3/2	M12 plug
9615400216	1	5/2	M12 plug

ThinkTop V70 AS-Interface v3.0, 62 node (6mm - 29.5 - 31.6 VDC)



CODE	SOL	ТҮРЕ	MAIN ENTRY
9615400301	0		Cable gland
9615400302	1	3/2	Cable gland
9615400304	2	3/2	Cable gland
9615400306	3	3/2	Cable gland
9615400308	1	5/2	Cable gland

ThinkTop V70 Digital IO-Link (6mm - 24 VDC)

## INDITOP®



## INDI Top 8-30vDC/AC, PNP/NPN. 2 position feedback

CODE	CABLE	PNP/NPN
9613418101	5m	PNP/NPN
9613418102	10m	PNP/NPN



## INDI Top 8-30vDC/AC, PNP or NPN. M12 Plug

CODE	CABLE	PNP/NPN
9613418103	0.5m M12 Plug	NPN
9613418104	0.5m M12 Plug	PNP

#### **BRACKET SYSTEMS FOR INDICATION SENSORS**

#### **Thinktop Adaptor for SSSV**



9612947601 12 5-19mm Bracket system for SMP-SC, SMP-BC, SMP-BCA, SMP-TO, LKLA-T (LKB), Koltek MH, SBV and Unique.



9612411202 12mm

\*Sensor not included

**LKAP Bracket system** 



9612498901 12mm

\*Sensor not included

**SSSV Bracket system** 



9612947703 12mm Bracket system for external sensor on Unique



SENSOR 9613095503 12mm

\*Sensor not included \*Sensor not included

#### LATERALLY MOUNTED UNIT FOR LKLA (LKB) / HANDLE 1.1

## Bracket system to suit inductive prox sensors 12mm sensors\* 18mm Sensors\*



9612552901

## Inductive Prox Switch 10-36 VDC PNP



25 - 101mm (85 Actuator) 101-150mm (133 Actuator)

9611995748



#### **Complete positioner 8694 without display**

25-101mm (85 Actuator)

101-150mm (85 Actuator)

101-150mm (133 Actuator)

CO	DE	VALVE TYPE	L
96119	95266	SSV Valve	
96119	95267	LKLA-T	

\*Sensor not included

9615552902

#### VALVE TYPE CODE 9611995268 SSV Valve 9611995269 LKLA-T

Complete positioner 8694 with display

Positioner for single acting actuators only. LKLA-T 85 n/c and SSV actuators (except long stroke)

## **CONDITION MONITOR**

The Alfa Laval CM monitors the operating condition of rotating equipment, such as pumps, mixers and agitators, used in hygienic process environments. Compact, easy to use and easy to install, it tracks equipment vibration, temperature and total run-time – three of the most widely used parameters for detecting and diagnosing equipment faults. This enables manufacturers in the dairy, food, beverage, home-personal care and pharmaceutical industries to protect critical assets, ensure process uptime, improve worker safety, reduce maintenance costs and gain competitive advantage.

Powering the Alfa Laval CM are equipment sensors that transmit data to a connected compatible mobile device for predictive maintenance analysis, thereby supporting decision-making with advanced diagnostics such as trend monitoring. Maintenance staff can check equipment vibration and temperature – either by visible notification on an LED indicator on the monitor or through an intuitive mobile app on a connected iOS or Android device within a 20-metre range during a periodic walk-around.

The Alfa Laval CM condition monitor is a quick and easy battery operated device, to attach to rotating equipment and detect any change in the equipment behaviour compared to the benchmark baseline on set-up. Providing users with easy, safe data via bluetooth to enable them to optimise process uptime, assist in maintenance scheduling and efficiency and reduce operating costs.

The Alfa Laval CM periodically measures the tri-axial vibration of the installed unit and the internal temperature storing 3 months of data for analysis, comparing it to the original baseline set-up values and pre-set warning and alarms, which if exceeded provide a visible indication via its LED and via the users mobile device.

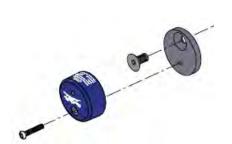




CONNECTION	CODE
M6	8010005350
M8*	8010005350
M10*	8010005351
M12*	8010005352
M16*	8010005353

\*Supplied with adaptor





To install the Alfa Laval Condition Monitor application, use a handheld device that operates with Android or iOS - Direct download via QR-code.









## **ELECTROMAGNETIC FLOW METER SYSTEMS**



**PD340 SERIES** 

The PD 340 Flow Transmitter is an electromagnetic precision meter for the volumetric measurement of liquids that are electrically conductive. The transmitter can be used in applications where a hygienic design is required. The rugged construction of the transmitter makes it suitable for installations where solid particles are present in the liquid.

#### **FUNCTIONS**

- Pulse and 4-20mA outputs
- Batch control; function
- Built-in PI flow controller
- Simple display connection. (PD210)
- P-Net IEC 61158 Fieldbus communication
- Two built-in counters for totalising the volume flow
- Inputs for temperature sensor and digital signal



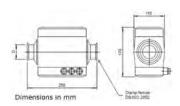




PD 210 Controller

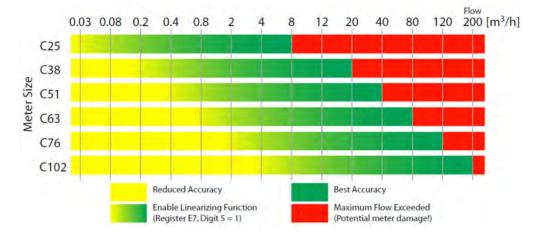
PD 340- C102

		SIZE	MAX FLOWRATE	K
Ī	C25	1"	8 m3/hr	
	C38	1 1/2"	20 m3/hr	
	C51	2"	40 m3/hr	
	C63	2 1/2"	80 m3/hr	
	C76	3"	120 m3/hr	
	C102	4"	200 m3/hr	



C76

C102



	Standard Version (2 pulse output)	Extended Version (current output, pulse output, P-Net interface)	Standard Version* (2 pulse output)	Extended Version* (current output, pulse output, P-Net interface)	Profibus DP Interface
SIZE					
C25	610100	611100	610134	611136	611135
C38	610300	611300	610336	611336	611335
C51	610500	611500	610536	611538	611537
C63	610700	611700	610730	611739	611738

610801

611800

611900

610800

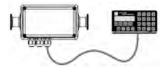
610900

\*Supplied with PD 210 display unit mounted on terminal box

611801

611767

611901



PD 210 Display



600087

PD 210 Display on terminal box lid



600379

## LIAG VALVES & PRODUCT RECOVERY SYSTEMS

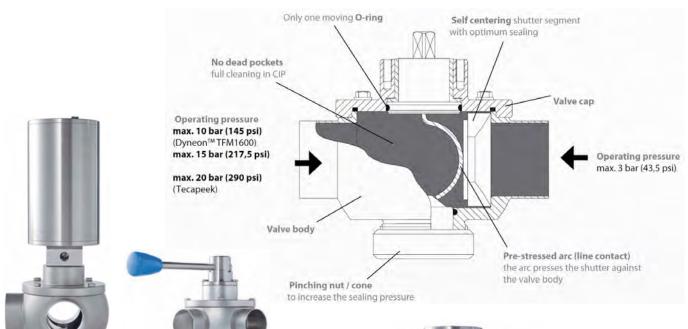
#### THE HYGENIC ALTERNATIVE TO BALL VALVES



FULL FLOW ZERO RESTRICTION CIP-able PIG-able







#### MATERIALS

Parts in contact with product : AISI 316L (1.4404)
O-ring gaskets : EPDM, Viton®, Silicone
Shutter : Teflon® (PTFE TFM1600)
optional, Tecapeek®

#### SURFACES

 $\begin{tabular}{ll} In contact with product & : Ra \le 0.8 \ \mu m \ (Ra \le 32 \mu in) \\ Option & : Ra \le 0.4 \ \mu m \ EP \ Internal \ surface \\ \end{tabular}$ 

#### **TEMPERATURE**

Operating temperature : 110°C (230°F)

Short-term : 140°C (284°F) optional - up to 160°C (320°F)

#### OPERATING PRESSURE

Pressure behind arc : 10 bar (145 psi) optional - up to 20 bar (290,1 psi)

Pressure against arc : 3 bar (43,5 psi)

#### ACTUATORS

Various feedback control systems and actuators (pneumatic, electrical), adaptable acc. Namur, DIN ISO 5211

#### **FURTHER OPTIONS**

- Heated valve casing
- Leakage control of moving O-ring seal / steam barrier
- Ball-bearing supported selector shaft
- Control valve 4 20 mA
- 4-way version
- 90° / 120° pigging valve
- 3.1b certification.







Shut off / Open / Closed 0°-90° / 0°-180°







0°-90° / 0°-180° / 0°- 90°-180°







90°/120° Pigging Valve

Soft distributing / Soft turn round of the pig  $0^{\circ}$ -120° / 0°-120°-240°

46 www.matrixps.com RETURN TO INDEX

## LIAG VALVES & PRODUCT RECOVERY SYSTEMS

#### **ARC AND PIGGING VALVES**

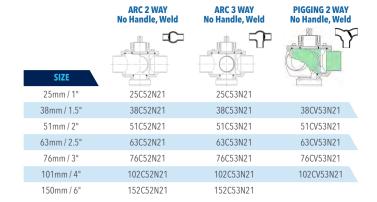












#### HANDLES AND ACTUATOR MOUNTING BRACKETS

	4 Position 90 Deg handles	2 Position handles with position sensor mount	3 x 120° Position handles	3 x 120° Position handles with position sensor mount	Mounting Bracket to suit S/S 90 Deg Actuators	Mounting Bracket to suit Aluminium Actuators
		* Sensor not included		* Sensor not included		
SIZE	ARC V	ALVES	PIGGING	VALVES	1277	12/1
25mm / 1"	25-40SD506-90	25-40SD506-90R	25-40SD506-90	25-40SD506-90R	BRKARCLKLA2	003904/000009 (F05)
38mm / 1.5"	25-40SD506-90	25-40SD506-90R	25-40SD506-90	25-40SD506-90R	BRKARCLKLA2	003904/000009 <b>(F05)</b>
51mm / 2"	50-63SD506-90	50-63SD506-90R	50-63SD506-90	50-63SD506-90R	BRKARCLKLA2	003904/000009 <b>(F05)</b>
63mm / 2.5"	50-63SD506-90	50-63SD506-90R	50-63SD506-90	50-63SD506-90R	BRKARCLKLA2	003904/000009 <b>(F05)</b>
76mm / 3"	65-80SD506-90	65-80SD506-90R	65-80SD506-90	65-80SD506-90R	ARCLKLA133	003757/000010 <b>(F07)</b>
101mm / 4"	100-102SD506-90	100-102SD506-90R	100-102SD506-90	100-102SD506-90R	004309/004613	002909/000010 <b>(F07)</b>
150mm / 6"	150D506-90	150D506-90R	150D506-90	150D506-90R		002904/002905 (F10)

#### **STAINLESS STEEL ACTUATORS 0° - 90°**



#### PNEUMATIC ALUMINIUM HOUSING ACTUATORS

	0° - 90° Air / Air	0° - 90° Air / Spring return	0° - 180° Air / Air	0° - 90° - 180° Air / Air / Air	0° - 120° Air / Air	0° - 120° - 240° Air / Air / Air
<b>SIZE</b> 25mm / 1"	25-63KB50	25KB51	25-63KB180	25-63KB52	0 4	6 .
38mm / 1.5"	25-63KB50	38-51HB51	25-63KB180	25-63KB52	38-63KB50V	38-63KB52V
51mm / 2"	25-63KB50	38-51HB51	25-63KB180	25-63KB52	38-63KB50V	38-63KB52V
63mm / 2.5"	25-63KB50	63-76KB51	25-63KB180	25-63KB52	38-63KB50V	38-63KB52V
76mm / 3"	65-80KB50	63-76KB51	65-80KB180	65-80KB52	65-80KB50V	65-80KB52V
101mm / 4"	100-102KB50	100-102KB51	100-102KB180	100-102KB52	100-105KB50V	100-105KB52V
150mm / 6"	150KA50	N/A	150KB180	150KB52		

## LIAG PRODUCT RECOVERY SYSTEMS

#### **DMV PRODUCT RECOVERY SYSTEMS**





#### DMV LIP PIG

DMV lip pigs are of homogeneous construction (hygienic design). They offer excellent cleaning effect and are virtually free of wear. Dynamic lips form a reliable sealing. As a function of the pushing and counterpressure these lips accommodate perfectly, thereby compensating for existing deviations in the pipe geometry. The pigs are highly flexible and suited for tight radii ( $R = 1.5 \times D$ ). As an option, dynamic lip pigs are equipped with a magnet for location and control. They are FDA-rated and available in silicone in the nominal widths DN 40 - 100 (1,5" - 4").

Contact your nearest Matrix office for a free consultation and design services.

**Double Loop.** Automatic return of pig by use of LIAG pigging valves (closed system).



Ring System. Closed system



**Two Way Turning Station.** Automatic return of pig by use of LIAG turning station (closed system).



One Way. Manual Return of pig



**Single Loop.** Automatic return of pig from receiving station, then manual change of direction.



#### SMV PRODUCT RECOVERY SYSTEMS

For less demanding applications where hygenic considerations are not required.

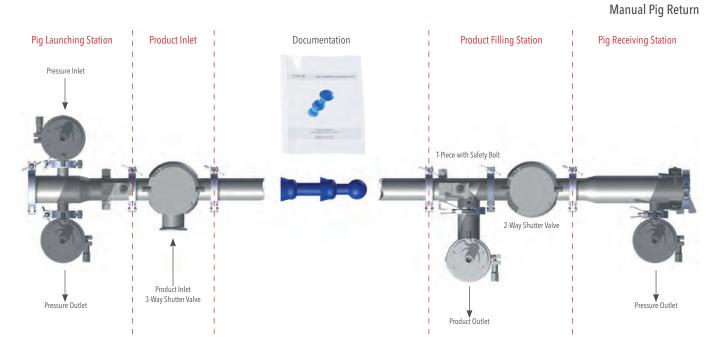






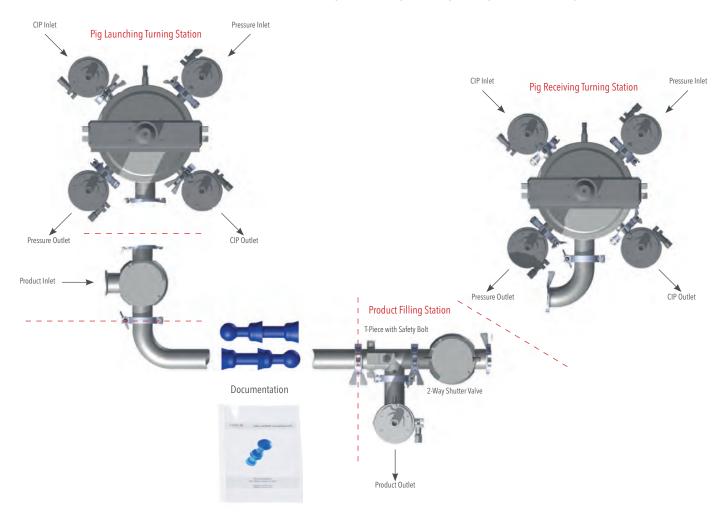
## **DMV PIGGING SYSTEM**

## ONE-WAY



## **BI-DIRECTIONAL WITH TURNING/CLEANING STATIONS**

Automatic Pig Return using LIAG® Pig Turning Station (closed System CIP / SIP automated)



## LIAG VALVES



#### **OPTIONS AND SPECIALTY VALVES**

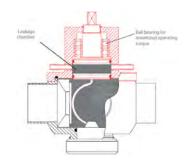
#### **HEATED LID**

LIAG® Heat Lid option, provides localised heating of the valve by use of steam or hot water. The purpose is to keep heated products at temperature at all stages of the process. Ideal for the confectionery industry.



#### LEAKAGE CAP

For maximum product safety, arc valves are available with a leakage monitoring system of the only moving/dynamic o-ring. The specific design identifies possible wearing defects of the seal and prevents any contamination from the outside environment. The special designed leakage chamber can act as a steam barrier or offer monitoring via means of a level conductor control (dilution of glycerine). The pivoting axle is supported with a stainless steel ball-bearing shaft for increased radial stability and 80% less required operating torque compared with the standard arc valve.



#### **VENTURI VALVE - For powder mixers**

LIAG® venturi valves are designed to enable smooth flow of powder through the valve, the middle port is orientated at a 135°/45° angle to the straight through passage. The Y-arrangement of the inlet creates the ideal flow and vacuum exhaust characteristics for proportioning and dosing. This allows for a complete full bore without reducing the nominal diameter as often experienced with the use of a butterfly valve. Furthermore the venturi valve can substitute up to two butterfly valves, which improves the operating control of the unit.





#### **EASY-OPEN** Arc valve for meat industry

LIAG® EASY-OPEN arc valves are specially designed as reliable partners of inline metal detectors and process lines in the meat industry without CIP Cleaning. This valve allows easy and quick opening with excellent cleanability.





#### FLOW CONTROL VALVE - Suitable for solids handling

On account of their favourable flow characteristic LIAG® arc valves are particularly suited for proportioning viscous and pasty products.

Depending on the product to be proportioned LIAG® control arc valves can be delivered with various shutter qualities and linearization inserts.

Control is performed via a standard 4-20mA (0-10V) electric actuator.

The control characteristic / rate of flow or the control range can be adapted to customer requirements.



#### **EXPANSION and SWIVEL JOINT**

LIAG® swivel joint fittings are designed as rotating pipe connection, e.g. in a flow panel. Teflon guided rings ensure radial shore. Additionally are the extending swivel joint fittings. Able to compensate for thermal length movements of upto 75mm.







24.5, 38.1, 50.8, 63.5, 76.1, 101.8mm



## LIAG VALVES & PRODUCT RECOVERY SYSTEMS



#### **ACCESSORIES / OPTIONS**

	Heated Bearing Lid. 1/2" BSP connection Arc Valves	Heated Bearing Lid. 1/2" BSP connection Pigging Valves	Inductive proximity switch for Alum. act.	Target Puck	Assembly Tool for pinching nut
SIZE					
25mm / 1"	25SD505H	N/A			25-150SL
38mm / 1.5"	38-40SD505H	38-40SDV505H	25-102M55	38-102SN53	25-150SL
51mm / 2"	50-51SD505H	50-51SDV505H	25-102M55	38-102SN53	25-150SL
63mm / 2.5"	63SS05H	63SV505H	25-102M55	38-102SN53	25-150SL
76mm/3"	65-76SD505H	65-76SDV505H	25-102M55	38-102SN53	25-150SL
101mm / 4"	100-102SD505H	100-102SDV505H	25-102M55	38-102SN53	25-150SL
150mm / 6"	150D505H	N/A			25-150SL

#### **SPARES**

	Dyneon TFM1600	TECAPEEK	Bearing Bush POM (std)	Bearing Bush TFM1600	Oring Kit EPDM	Oring Kit VITON	Oring Kit FEP
SIZE							
25mm / 1"	25SD501T	25SD501P	25SD503	25SD503T	25SD501G	25SD501H	25SD501P
38mm / 1.5"	38-40SD501T	38-40SD501P	38-80SD503	38-80SD503T	38-40SD501G	38-40SD501H	38-40SD501P
51mm / 2"	50-51SD501T	50-51SD501P	38-80SD503	38-80SD503T	50-51SD501G	50-51SD501H	50-51SD501P
63mm / 2.5"	63S501T	63S501P	38-80SD503	38-80SD503T	63S501G	63S501H	63S501P
76mm / 3"	65-76SD501T	65-76SD501P	38-80SD503	38-80SD503T	65-76SD501G	65-76SD501H	65-76SD501P
101mm / 4"	100-102SD501T	100-102SD501P	100-102SD503	100-102SD503T	100-102SD501G	100-102SD501H	100-102SD501P
150mm / 6"	150D501T				Upon Request		



## MH SHUTTER VALVES





MH SHUTTER VALVE 2 WAY (No Handle)

**MH SHUTTER VALVE** 3 WAY (No Handle)

HANDLE TO SUIT 2 WAY MH VALVE

HANDLE TO SUIT 3 WAY MH VALVE

ACTUATOR MOUNTING BONNET

BRACKET FOR INDICATION UNIT













SIZE						miner.
25mm / 1"	9612260013	9612260113	9612436204	9612436201	9612495901	9612506201
38mm / 1.5"	9612260014	9612260114	9612436204	9612436201	9612496001	9612506202
51mm / 2"	9612260015	9612260115	9612436205	9612436202	9612496101	9612506203
63mm / 2.5"	9612260016	9612260116	9612436205	9612436202	9612496201	9612506203
76mm / 3"	9612260017	9612260117	9612436206	9612436203	9612505101	9612506203
101mm / 4"	9612260018	9612260118	9612449002	9612449001	9612480801	9612506204

SIZE	CODE
25 - 51mm	9612482101
25 - 51mm	9612482102 **
63.5 - 76mm	9612494601
63.5 - 76mm	9612494602 **

<sup>\*\*</sup> Actuator to suit Indication unit

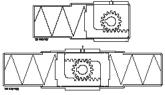
25 - 76mm

25 - 76mm

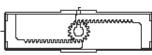
101mm

101mm

ACTUATOR	KH630	2	Pos.	90°	SPRING	RETURN



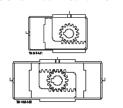
ACTUATOR	KH632 2	Pos.	180°	AIR/AIF



SIZE	CODE
25 - 76mm	9612479201
25 - 76mm	9612479203 **
101mm	9612480601
101mm	9612480603 **

<sup>\*\*</sup> Actuator to suit Indication unit

#### **ACTUATOR KH631 2 Pos. 90° AIR/AIR**



SIZE	CODE	\
25 - 76mm	9612495301	
101mm	9612495701	





## **BALL VALVES**

1 PIECE. 316s/s BSP. 1000WOG

9612479202

9612479204 \*\*

9612480602 9612480604 \*\*

2 PIECE. 316s/s BSP. 1000WOG

3 PIECE. 316s/s BSP. 1000WOG

3 PIECE. 316s/s BSP. 1000WOG ISO 5211 MOUNT

3 PIECE. 316Ls/s TUBE WELD ISO 5211 MOUNT

3 PIECE. 316Ls/s CLAMP ENDS ISO 5211 MOUNT







SIZE	
1/4"	BV008V136











OPTIONS
Solenoids
Feedback sensors
Double Acting

Spring return

J	<b>\</b>			49	and the same of th	
1/4"	BV008V136	BV008V236	BV008V336	BV008V339		
3/8"	BV010V136	BV010V236	BV010V336	BV010V339		
1/2"	BV015V136	BV015V236	BV015V336	BV015V339	BV015V2008W	BV015V2008TC
3/4"	BV020V136	BV020V236	BV020V336	BV020V339	BV020V2008W	BV020V2008TC
1"	BV025V136	BV025V236	BV025V336	BV025V339	BV025V2008W	BV025V2008TC
1 1/4"	BV032V136	BV032V236	BV032V336	BV032V339	BV032V2008W	BV032V2008TC
1 1/2"	BV040V136	BV040V236	BV040V336	BV040V339	BV040V2008W	BV040V2008TC
2"	BV050V136	BV050V236	BV050V336	BV050V339	BV050V2008W	BV050V2008TC
2 1/2"	BV065V136	BV065V236	BV065V336	BV065V339	BV065V2008W	BV065V2008TC
3"	BV080V136	BV080V236	BV080V336	BV080V339	BV080V2008W	BV080V2008TC
4"	BV100V136	BV100V236	BV100V336	BV100V339	BV100V2008W	BV100V2008TC

## ISO Ball Valve Mounting bracket. LKLA



SIZE	CODE	LKLA ACT SIZE	ISO 5211	PCD	A	
1/2", 3/8", 1/2", 3/4"	9612491817	Ø85	F03	36	9	
1", 1 1/4"	9612491818	Ø85	F04	42	11	
1 1/2", 2", 2 1/2"	9612491819	Ø85 A/A	F05	50	14	
3"	9612491820	Ø85 A/A	F07	70	17	
3", 4"	9615369102	Ø133 A/A	F07	70	17	
	9615369101		F10	102	22	

<sup>\*\*</sup> Actuator to suit Indication unit

## **SERVICES VALVES**

#### STAINLESS STEEL KNIFEGATE VALVES

#### MANUAL 316s/s ACTUATED 316s/s 50NB 65NB 80NB 100NB 125NB 150NB 200NB 250NB 300NB 350NB 400NB 450NB 500NB 600NB

**BSP NON RETURN** 

VALVE 316 s/s (SPRING)

BSPNRV0156

BSPNRV0206

BSPNRV0256

BSPNRV0326

BSPNRV0406

BSPNRV0506

1/2"

3/4"

1"

1 1/4"

1 1/2"

2"

#### CI WAFER/LUGGED BUTTERFLY VALVES

,

Actuators to suit butterfly valves available Sized on application



## **BSP VALVES**

#### **BSP Y Type Strainer**



	GESM 200
SIZE	
1/2"	BSPSCV0156
3/4"	BSPSCV0206
1"	BSPSCV0256
1 1/4"	BSPSCV0326
1 1/2"	BSPSCV0406
2"	BSPSCV0506

**BSP NON RETURN** 

VALVE 316 s/s (SWING)

SIZE	HOLES	
1/2"	1.5mm	BSPYS0156
3/4"	1.5mm	BSPYS0206
1"	1.5mm	BSPYS0256
1.25"	1.5mm	BSPYS0326
1.5"	1.5mm	BSPYS0406
2"	1.5mm	BSPYS0506
2 1/2"	1.5mm	BSPYS0656
3"	1.5mm	RSPYS0806

## FULL FLOW DIAPHRAGM VALVES

# WIRELESS DIAPHRAGM VALVES (Manual)



## SANITARY VALVES



#### **LKUV-2 AIR RELEASE VALVE**

CODE	CONNECTION
9613426901	20mm butt weld
9613426905	38mm Tri-Clamp
9613426908	51mm Tri-Clamp



#### **WORKING PRINCIPLE**

LKUV-2 is a double-seated valve with a freely moving plastic ball. The ball, which is lighter than water, closes against the upper or lower seat, depending on the pressure conditions.

LKUV-2 is a reliable, automatic air-relief valve which is installed vertically on the top of a pipeline or container or before the inlet for a pump, where the removal of air is required.

Example 1: Bleeding of a pipe line where an air pocket has formed on account of the installation. In this case the valve is installed at the top of the pipe.

Example 2: Bleeding of a pipe on the suction side of a pump. The suction side is bled automatically, before the pump starts, establishing a vacuum. Binding of air to the product will be prevented, and hence subsequent cavitation. In this case the valve is installed in front of the pump, on top of the inlet pipe.

#### LKBV AIR BLOW VALVE



The airblow valve is used for emptying liquids from pipe-lines or for agitating the contents of tanks by blowing air.

Air is supplied to the airblow valve from a main buffer tank via a pilot operated solenoid valve. Pressure will then build up inside the airblow valve and the valve plug will open, delivering a current of air into the pipeline system or tank.

After a certain time the solenoid valve will close. This reduces the pressure in the airblow valve and allows the spring to return the valve plug to its original position.

This process will repeat itself at intervals, thus emptying the pipeline system of liquid or agitating the contents of the tank.

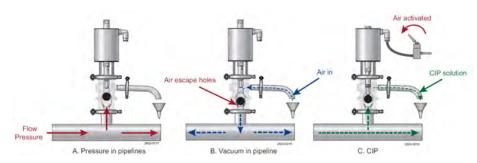
#### **UNIQUE VACUUM BREAKER VALVE**

CODE	CONNECTION
9634098751	38mm
Therefore	
411	4117

The Alfa Laval Unique Vacuum Breaker Valve operates in a manner similar to a ball check valve. When pipelines are pressurized during a process or CIP, the internal ball is forced upward against its seat, closing the vent port.

When pipeline pressure drops, the ball is drawn downward, allowing air to enter the vent, thereby preventing vacuum in the system.

During CIP, a pneumatic actuator is used (pulsed) to force the ball off the upper seat, enabling the seat and the interior of the vacuum breaker valve to be cleaned. CIP fluid is discharged during the actuator pulse and is drained through the vent port.



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#### **CONSTANT PRESSURE SYSTEM**

#### APPLICATION

To obtain an accurate top pressure system for remote control in tanks during filling, storage and emptying conditions. The constant pressure system is applicable for control of one or more tanks working with the same top pressure.

SIZE	FILLING/EMPTY RATE
38mm	max 500 hl/h
51mm	max 1000 hl/h



#### **SCANDIBREW CARLSBERG FLASK**

#### APPLICATION

The Carlsberg flask is used for sterilizing wort and propagating pure yeast culture for yeast propagation plants in laboratory scale.





#### **SCANDIBREW COMBINED SAFETY VALVE (OVERPRESSURE/VACUUM)**

#### APPLICATION

To minimise risk of tank damage due to implosion and over-pressure. Applicable as an option to dead weight or spring regulated safety valves.

CONNECTION	VACUUM	BURST DISC
76mm	70mm	50 or 80mm
101mm	100mm	80 or 100mm
150mm	150mm	80 or 100mm
200mm	200mm	80 or 100mm



#### **SCANDIBREW TOP PLATE ASSEMBLIES**

#### APPLICATION

For cylindro-conical tanks the special compact design and central location of the tank top system provides an efficient and economic way of mounting anti vacuum / pressure relief safety valves, CIP supply with cleaning head, pressure control etc., in a single assembly.



#### **SCANDIBREW TANK PRESSURE REGULATOR, TYPE 2**

#### APPLICATION

The tank pressure regulator is used on tanks within the brewing industry. The purpose of the regulator is to maintain and regulate top pressure on pressure tanks during filling, processing and emptying.

CONNECTION	FILLING/EMPTY RATE	WORK CAP OF FERMENTER*
50mm	max 1000 hl/h	max 4000 hl
80mm	max 2000 hl/h	max 8000 hl
101mm	max 3000 hl/h	max 12000 hl

\*At max. fermentation rate 2.4 deg. Plato / 24 hrs.



## FILTRATION UNITS



SIZE	CODE	HOLES
25mm	9612025701	1.5mm
38mm	9612025702	1.5mm
51mm	9612025703	1.5mm
63mm	9612025704	1.5mm
76mm	9612025705	1.5mm



SIZE	CODE	HOLES
25mm	9612025801	1.5mm
38mm	9612025802	1.5mm
51mm	9612025803	1.5mm
63mm	9612025804	1.5mm
76mm	9612025805	1.5mm



SIZE	1MM HOLES	2MM HOLES	3MM HOLES
25mm	9612190120	9612190125	9612190130
38mm	9612190121	9612190126	9612190131
51mm	9612190122	9612190127	9612190132
63mm	9612190123	9612190128	9612190133
76mm	9612190124	9612190129	9612190134





#### LKVF-Coarse Strainer Battery



SIZE	1MM HOLES	2MM HOLES	3MM HOLES
25mm	9612192110	9612192115	9612192120
38mm	9612192111	9612192116	9612192121
51mm	9612192112	9612192117	9612192122
63mm	9612192113	9612192118	9612192123
76mm	9612192114	9612192119	9612192124

#### 'Y' Type Strainer

#### 'T' Type Strainer





SIZE	HOLES			
25mm	1.6mm	YSTRAINER025	TSTRAINER025	
38mm	1.6mm	YSTRAINER040	TSTRAINER040	
51mm	1.6mm	YSTRAINER050	TSTRAINER050	
63mm	1.6mm	YSTRAINER065	TSTRAINER065	
76mm	1.6mm	YSTRAINER080	TSTRAINER080	
100mm	1.6mm	YSTRAINER100	TSTRAINER100	

## LKSF SLOT STRAINER

#### SIZES

25, 38, 51, 63, 76 & 101mm

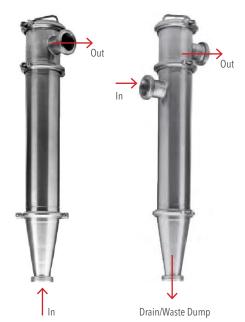
			_
ı	OPTIONAL ELEMEN	T SIZES AVAILABLE	
	53µm	420µm	
	63µm	595µm	
	88µm	841µm	
	125µm	1190µm	
	149µm	1410µm	
	210µm	1680µm	
	250µm	2380µm	
	297µm	3360µm	
	354µm	4000µm	

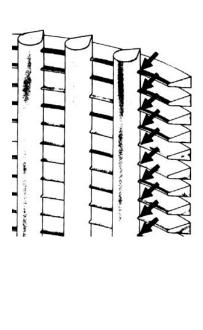
#### STANDARD ELEMENT SIZES

77µm	
105µm	
177µm	
500µm	
707µm	
1000µm	
2000µm	

#### LKSF-BL SLOT STRAINER Inline Wedge Wire

LKSF-CL SLOT STRAINER Inline Wedge Wire with Backflush





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## **ALL WE DO IS SAMPLING!**

Being the world market's only true specialist KEOFITT has developed the widest and deepest product range available for hygienic, sterile and aseptic sampling of liquids in all industries.

Contact Matrix Process Solution for more information.



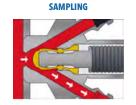




Coaxial steam sterilizable design with separate inlet for SIP and CIP: The reference for hygienic and microbiological sampling for three decades, this is the original, in-situ sterilizable sampling valve that continues to revolutionize the field of sterile sampling.

Refined over the years, it remains the most popular and best selling valve in the market by far. It is based on Keofitt's unique, patented membrane and is used in more than 150,000 sampling points worldwide everyday.

Available in four models and sizes: 4KAI (ID 5mm), W9 (ID 9mm), W15 (ID 15mm) and W25 (ID 25mm).





#### **4KAI CLASSIC**

The KEOFITT CLASSIC 4KAI Sampling Valve is the smallest KEOFITT CLASSIC valve available. It is designed for the sampling of low viscosity products.



#### **W9 CLASSIC**

The W9™ is the standard Keofitt® sampling valve, the valve others are measured to. Designed for sampling medium viscosity products.

Max Particle size 2-3mm | Viscosity range 0 - 1,000cP



		TYPE H TURN KNOB 0-10 BAR (FFKM 0-6 BAR)	TYPE H TURN KNOB W/. MICROPORT 0-10 BAR	TYPE K KEY RING 0-10 BAR (FFKM 0-6 BAR)	TYPE K KEY RING W/OPT. MICROPORT 0-10 BAR	Type B No Spring 0-12 Bar	TYPE Q LEVER HANDLE 0-10 BAR (FFKM 0-6 BAR)	TYPE N PNEUMATIC 0-10 BAR (FFKM 0-6 BAR)	TYPE N PNEUMATIC, ADJUSTABLE 0-10 BAR (FFKM 0-6 BAR)	
	MEMBRANE	Ţ	Ī		#		ŦŸ	44	<b>4</b> Y	
ď	Silicone	600041	600048	600042	600049	600047	600043	600044	600045	
	EPDM	600041E	600048E	600042E	600049E	600047E	600043E	600044E	600045E	
	FFKM	600041F	Not Available	600042F	Not Available	600047F	600043F	600044F	600045F	
	PTFE	85541	Not Available	855542	Not Available	855547	855543	855544	855545	



#### **W15 CLASSIC**



The KEOFITT CLASSIC W15 Sampling Valve is designed for high viscosity products. Sampling of more viscous liquids is possible, only will it take longer (depending on process pressure).

Max Particle size 8.0mm | Viscosity range 0 - 50,000cP

Tank(T) Welding	Pipe(P) Welding	Varivent ø68	Clamp ø1" & 1½"	Clamp ø2"	Clamp ø3"	Type H Turn Knob 0-10 Bar(G) PTFE	Type B No Spring 0-12 Bar(G) PTFE	Type N pneumatic 0-10 Bar(G) PTFE
						OLC III	OLC	Y
440001	440011	440021	440022	440023	440024	865541	865547	865544

#### **W25 CLASSIC**



The KEOFITT CLASSIC W25 Sampling Valve is the largest KEOFITT sampling valve. Designed for sampling of very high viscosity products. Sampling of more viscous liquids is possible, only will it take longer (depending on process pressure).

Max Particle size 17mm | Viscosity range 0 - 250,000cP



The KEOFITT CLASSIC "INGOLD" sampling valve is designed to fit bio-connectors type Ingold®. Designed for the sampling of medium viscosity products, it covers most needs for liquid sampling. Sampling of more viscous liquids is possible, only will it take longer (depending on process pressure).

Max Particle size 2mm | Viscosity range 0 - 1,000cP



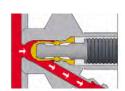
		Type H Turn Knob 0-10 Bar(G)	Type Q Lever Handle 0-10 Bar(G)	Type N pneumatic 0-10 Bar(G)
I40 Body	SILICONE	310041	310043	310044
I40 Body	EPDM	310041E	310043E	310044E
I40 Body	PTFE	315541	315543	315544
152 Body	SILICONE	320041	320043	320044
I52 Body	EPDM	320041E	320043E	320044E
I52 Body	PTFE	325541	325543	325544

**INGOLD CLASSIC** 

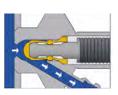


SINGLE-PORT

Replace your ordinary, non-hygienic sampling cocks with the KEOFITT Single-Port Sampling Valve. This valve is CIP-able with process CIP and still true to the Keofitt concept, as it is available with various process connections with manual or pneumatic operation.



SAMPLING



**STERILIZATION** 



#### **BASIX**

The KEOFITT BASIX™ Sampling Valve is our basic CIP-able sampling valve for less demanding applications. The KEOFITT BASIX™ Sampling Valve is our product category for process CIP-able sampling valves for less demanding applications that require no separate inlet for sterilizing or sanitizing media.

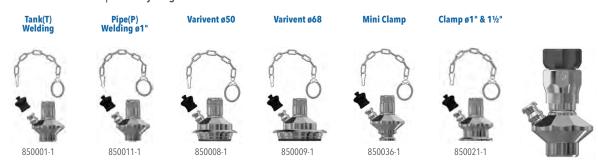
Max Particle size 1.5mm | Viscosity range 0 - 100cP

		MANUA	L VALVE			PNEUMATI	C VALVE	
	Tank Welding	Pipe Welding	Mini Clamp	Clamp ø1" & 1½"	Tank Welding	Pipe Welding	Mini Clamp	Clamp ø1" & 1½"
MEMBRANE								
Silicone	450141	451141	452141	452241	450144	451144	452144	452244
EPDM	450141EPDM	451141EPDM	452141EPDM	452241EPDM	450144EPDM	451144EPDM	452144EPDM	452244EPDM
PTFE	450141PTFE	451141PTFE	452141PTFE	452241PTFE	450144PTFE	451144PTFE	452144PTFE	452244PTFE

#### **W9 SINGLE PORT**

The W9™ is the standard Keofitt® sampling valve, the valve others are measured to. Designed for sampling medium viscosity products. Used in conjunction with W9 Classic heads.

Max Particle size 3mm | Viscosity range 0 - 1000cP





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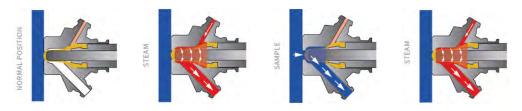


The unique feature of this valve is in its membrane design which incorporates two separate seats for sampling and sterilizing/sanitizing, respectively. The second seat is located in the area sealing off the valve head. This design allows the sealing area to be sterilized along with the valve chamber prior to each sampling procedure. Furthermore, no separate inlet is required, thus eliminating any dead space while sampling.

The KEOFITT SESAME valve is designed for sampling of low or medium viscosity products. Sampling of more viscous liquids is possible, only will it take longer (depending on process pressure). The double-seat SESAME™ valve is used in a range of applications such as brewery, dairy, pharmaceutical and biotechnological companies, with a wide range of products

Max Particle size 3.0mm | Viscosity range 0 - 1,000cP





#### **SESAME BODIES**

	Tank Welding	Pipe Welding	Varivent 50	Varivent 68	Mini Clamp	Clamp 1" & 1½"	Clamp 2"
OUTLET CONNECTIONS		-					
Hose Piece	890001	890011	890008	890009	890036	890021	890003
1/2" Tri-Clamp	890006	890010	On Request	890013	890039	890022	890005
1/2" Welding Ends	890007	890019	On Request	On Request	On Request	On Request	On Request

#### **SESAME HEADS**









#### **MICRO PORT**

The Keofitt Micro Port is a re-sealing rubber septum designed to take samples using hypodermic needles or syringes with minimal risk of contamination. Designed for sampling low viscosity products in the range 0-50 cP.

The Keofitt Micro Port is easy to use and maintain, if needle sampling is required.





#### **VARIOUS ITEMS**







#### **KEOFITT BOTTLE SAMPLING SYSTEM**

#### Sampling Bottle Head W9

Sampling Bottle Head W15

860030



ASEPTIC SAMPLING SYSTEM

Bottle sizes 250-2000 ml

Bottle sizes 4000 / 5000ml











SAMPLING

STERILIZATION





The KEOFITT Aseptic System enables the user to take a truly representative aseptic sample. It protects the sample against airborne contamination, while extracting the sample, during transportation and storage.

The standard operating procedure involves steaming the sampling valve with the KEOFITT Aseptic System connected, in order to sterilize the sampling valve and the connection between the sampling valve and the KEOFITT Aseptic System. This procedure ensures the sterilization of the whole flow path in a closed circuit.

The KEOFITT Aseptic System is based on KEOFITT's guarantied high quality, microbiologically safe valve design. It shall be used with PP sampling bottles (# 260325-1 / 260525-1 / 260625-1), which are autoclavable, robust and translucent.

#### SINGLE USE SAMPLING BAGS

	ASEPTIC SA	MPLE BAGS	STERILE SAM	MPLING BAGS	SPIKE BAGS
	Hose Piece	Mini Tri-Clamp	Hose Piece	Mini Tri-Clamp	PP
SIZE	The state of the s	A STANLEY OF THE STAN	The state of the s	City Park	
50ml	120050	120050TC			
250ml	120250	120250TC			
500ml	120500	120500TC	110500	110500TC	
1000ml	121000	121000TC	111000	111000TC	131000PP
2000ml	122000	122000TC	112000	112000TC	
2000ml					



The Keofitt Sampling Bags have all been developed as single-use solutions to the cumbersome and difficult task of taking a representative sample and bringing it safe and clean from the sampling point to the laboratory.

Due to shelf life considerations. Bag deliveries are based on supply agreements. Bags are not stocked but made to order.



## **KEOFITT ACCESSORIES**

	Membrane Silicone Grey 10 pack	Membrane EPDM Black 10 pack	Membrane Silicone MP 10 pack	Membrane EPDM MP 10 pack	Membrane FFKM	Membran PTFE White	Membrane Silicone Grey	Membrane EPDM Black	Membrane PTFE White
MODEL					40				
M4	400051	400052				400055			
4KAI / BASIX	400051	400052				400055			
W9	600051	600052	600251	600252	600053	850055			
W15						860055			
W25						870055			
SESAME							890051	890052	890055

	Tommy Bar	Lever Handle Self Closing	Lever Handle Q/N	Lever Handle Q	Lever Handle Self Closing Q	Tool for PTFE Membrane	Adaptor MiniTC / 1"TC	Spike for Spike Bag	Mini TC Spike
MODEL		<b>—</b> C		<b>—</b> C	<b>—</b> C		H		<b>)</b>
M4	900018	600370	600170			400255	800014	400013	
4KAI / BASIX	900018	600370	600170			400255	800014	800013	
W9	900018	600370	600170			600255	800014	800013	900013
W15		600370	600170			860255	800014	800013	900013
W25						870255			
SESAME		600370(N)	600170 (N)	890170	890370	880255*	800014	800013	

	Sampling Coil	XL Sampling Coil	10 pack Rubber Cap	Key Ring	Double S/S Chain	Single S/S Chain	Quick Coupling mini tri-clamp	Adaptor Hose Piece / Mini TC	Bushing
MODEL				C00		Ç			
М4	400058		400062	400076	440064		400083	900097	400149
4KAI / BASIX	800058	800059	600062		440064	600063	800083	900096	
W9 / Sesame	800058	800059	600062	600076	600064	600063	800083	900096	600149
W15							800083	900096	

	Proximity Sensor	Proximity Sensor	Proximity Sensor mounting	HP Male Thread M12	Hose Piece / Hose Piece	Hose Piece for Tube welding	Needle	Wick for W9 Valve MP 100 pack	Emergency Tool
MODEL		E					M		-
M4	400166		400167			400067 (10X8)			
4KAI / BASIX				900031	800052	700108			
W9 / Sesame	400166	600266	600267	900031	800052	700108	900022	900069	800077

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#### **KEOFITT ACCESSORIES**

	Quick Coupling Plug	Quick Coupling for s/s tube	Quick Connect Syringe Injection	Quick Connect Luer lock Adaptor	Quick Coupling 12-13mm or 1/2" ID hose	Quick Coupling W9 hosepiece	Quick Coupling M4 hosepiece	KARCHER / KEOFITT Adaptor	Bushing for 4KAI / BASIX Head
MODEL									
M4	400061	400070 (8x1)			400085	400086		550057	
4KAI / BASIX	800061	800070 (10x1)	900045	800085			800086	550057	440149
W9 / Sesame	800061	800070 (10x1)	900045	800085			800086	550057	

	Quick Coupling for PTFE tube	PTFE TUBE c/w Quick Connect 0.5m	PTFE TUBE c/w Quick Connect 1.0m	PTFE TUBE Quick Connect / TC 0.5m	PTFE TUBE Quick Connect / TC 1.0m	Welding Piece for PTFE Tube	Mini TC for PTFE tube	PTFE Tube 10/8	Quick Coupling ID hose
MODEL	S. Carlon	STATE OF THE PARTY	SSE!	· in	1	· Ramana	AR.	1	
М4	400091 (8x1)	550002	550003	550002,2	550003,2				400084 (ID 4mm)
4KAI / BASIX	800091 (10/8)	550002	550003	550002,2	550003,2	800075 (10/8)	300021 (10/8)	900047	800082 (ID 7mm)
W9 / Sesame	800091 (10/8)	550002	550003	550002,2	550003,2	800075 (10/8)	300021 (10/8)	900047	800082 (ID 7mm)
W15				550002,2	550003,2	800075 (10/8)	300021 (10/8)	900047	





## SIGHTGLASS SOLUTIONS

#### **POLYSIGHT**

#### STANDARD DESIGN

- Tri-Clamp connections
- Polysulfone Lens
- 10 Bar pressure rating
- 130 Deg C Max Internal Temperature. (Ambient external)
- EPDM Elastomers standard.
- 304 s/s or 316 s/s
- FDA, USDA and 3-A Dairy compliant
- Predrilled for quick and easy installation
- Indoor use only. Not suitable for high UV levels. (Outdoors)
- Optional UV resistant guard available on request.

#### Polysulfone Lens 316 s/s



JIZE	
25mm	PSK0256
38mm	PSK0406
51mm	PSK0506
63mm	PSK0656
76mm	PSK0806
101mm	PSK1006

## **NO GLASS**



#### **ALFA LAVAL FLEXBODY®**



SIZE	1x sightglass, 1x blind cap, 2 clamps, 2 x orings	2x sightglass, 2 clamps, 2x orings	
DN25 / 1"	9614464317	9614464323	
DN40 / 1.5"	9614464318	9614464324	
DN50 / 2"	9614464319	9614464325	
DN65 / 2.5"	9614464320	9614464326	
DN80 / 3"	9614464321	9614464327	
DN100/4"	9614464322	9614464328	
DN125	9614464307	9614464315	
DN150	9614464308	9614464316	

#### **INLINE AND PORTHOLE**

LKGG-1 INLINE SIGHTGLASS - 316s/s (Option with light)



SIZE		
25mm	9612141406	
38mm	9612141407	
51mm	9612141408	
63mm	9612141409	
76mm	9612141410	
101mm	9612141412	

Polycarbonate sightglass lens (to suit BSM Nut)



SIZE	
25mm	SGPH025
38mm	SGPH040
51mm	SGPH050
63mm	SGPH065
76mm	SGPH080
101mm	SGPH100
150mm	SGPH150

LKS 105 SIGHTGLASS



\*To suit Edel LUX light fitting

105

105

LKS 78 AND 120 SIGHTGLASS



78

78

120

120

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#### MAX MÜLLER AG

## SIGHTGLASS SOLUTIONS

















#### SIGHTGLASSES



PN 0 or similar to DIN 28120 (PN 2.5)



**DIN 28120 / 28121** 



**DIN 11851 Series** 



DIN 28120 Double glazed with or without heating



DIN 28121 double glazed with or without heating



Hinged sightglass with or without illumination. Series KSG(B)





Metal fused sightglass for triclamp fittings



Metal fused sightglass with wiper series WD for tri-clamp fittings



Metal fused sightglass for NA-connect-connections



**METAL FUSED SIGHTGLASSES** 

**METACLAMP** sightglasses for NA-Connect connections



Metal fused sightglass flanges for sterile applications

#### SIGHTGLASS ACCESSORIES



D-Ended elongatred series LSG (R,RR)



Rectangular series RSG (R, RR)



Centrally operated wipers, series W(D), WDT, W(D)R, up to PN6



Sideways operated wipers. Series WS, up to PN16



Spraying Devices, Series SV



Sightglass discs with or without central bore hole

#### **PROCESS ILLUMINATION**



Halogen light fitting. Series KLR



Halogen light fitting. Series KVLR



Halogen light fitting. Series HLMR



Halogen and LED light fitting. Series BKVLR



Halogen and LED light fitting. Series HLMR



**Series EdelEX d LED** 



Series BKVLR A / BKVLR A LED STERI-LINE for metal fused sightglasses



Series KLR A / KLR A LED STERI-LINE for metal fused sightglasses



Series EdelEx STERI-LINE 5/10/20 dH for metal fused sighglasses for triclamp fittings



**Series EdelEx STERI-LINE 5/10/20** dH for metal fused sighglasses for sterile applications



**Metal fused** sightglass for Tri-clamp fittings for series fibroLUX



**Metal fused** sightglass for Tri-clamp fittings for series fibroLUX, for "view for light"



Dia 94mm for 51mm tube with 3mm holes

9611710972

#### **LKRK STATIC SPRAY BALLS**

Fixed spray balls are used for cleaning storage tanks in the food and beverage industries. Fixed spray balls are used for less demanding cleaning duties.







Dia 64mm for 25mm tube with 2mm holes tube with 2mm holes

11

					-
CODE	m3/hr	CODE	m3/hr	CODE	m3/l
9611710851	7,5	9611710951	18	9611710952	42
9611710861	8,5	9611710961	21	9611710962	44

31

9611710971

#### SANI TJ ROTARY SPRAY HEADS

#### SANIMICRO

The Toftejorg SaniMicro is a rotary spray head that uses cleaning media to provide coverage and impact. The device represents an effective alternative to traditional static spray balls because it uses low volumes of cleaning fluid at low pressure. The double ball bearing in the Toftejorg SaniMicro's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 0.05 to 1 m3, depending on dimensions and cleaning task.

#### SANIMIDGET

The Toftejorg SaniMidget is an efficient replacement for traditional static spray balls as it uses low volumes of liquid at low pressure. The device, particularly well-suited to hygienic applications, can be used in tanks ranging from 0.1 to 10 m3.

#### SANIMAGNUM

The Toftejorg SaniMagnum is an efficient replacement for traditional static spray balls as it uses low volumes of liquid at low pressure. The device, particularly well-suited to hygienic applications, can be used in tanks ranging from 5 m3 to 50 m3.

9611710871

В

Т

	·
Flow Rate	m
Pressure	Е
wetting radius	
Impact radius	
Patterns	

Units	Min	Max
m3/hr	1,8	2,9
Bar	2	2
M	2	2,5
M	0,25	0,75
360°, 27	70° up,180° d	own

Connections BSP Female : 3/8" : Ø19.2mm ID Clip-On Weld On : Ø19.05 x 1.65mm

**Toftejorg** 

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Flow Rate
Pressure
wetting radius
Impact radius
Patterns

Units	1	Min	1	Мах
m3/hr		2,2		6,5
Bar		2		2
M		2,5		3
M		0,85		1,4
3	60°. 2	270° un	. 180	°

3/4"
Ø25.7mm ID
Ø25.4 x 1.65mm



Flow Rate Pressure wetting radius Impact radius Patterns

Units	Min	Max
m3/hr	2,2	6,5
Bar	2	2
M	2,5	3
M	0,85	1,4
360	°. 270° up. 18	30°

2.5

2,4

0,9

360°, 270° up, 180° down

BSP Female : 1/2" or 3/4"

3

3

1.45

: Ø25.4 x 1.6mm

: Ø38 x 1.6mm

m3/hr

Bar

Weld On

Weld On

Connections BSP Female : 1 1/4" & 1 1/2" Clip-On : Ø38.4 & Ø51.3

: Ø38.1 & Ø50.8

Weld On

#### **MULTI TJ ROTARY SPRAY HEADS**

#### MULTIMIDGET

The Toftejorg MultiMidget is a rotary spray head that uses cleaning media to provide coverage and impact. The device represents an effective alternative to traditional static spray balls because it uses low volumes of cleaning fluid at low pressure. The double ball bearing in the Toftejorg MultiMidget's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 0.1 m3 to 10 m3, depending on dimensions and cleaning task.



The Toftejorg MultiMagnum is a rotary spray head that uses cleaning



Flow Rate Pressure wetting radius Impact radius Patterns

Connections

Flow Rate

Pressure

wetting radius

Impact radius

Patterns

Connections

Units	Min	Max
m3/hr	5	18
Bar	1	3
M	2,8	3
M	1,8	2,01
360°,	270° up, 18	80°
DCD Fama	lo · 1 1///"	









media to provide coverage and impact. The device represents an effective alternative to traditional static spray balls because it uses low volumes of cleaning fluid at low pressure. The double ball bearing in the Toftejorg MultiMagnum's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 5 m3 to 50 m3, depending on dimensions and cleaning task.

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#### SB ROTARY SPRAY HEADS

#### **SANIMIDGET SB & ULTRAPURE**

The Toftejorg SaniMidget SB 3-A Rotary Spray Head is preliminary designed for the pharmaceutical industry with respect to self-cleaning, self-draining and inspectability. Its novel patent pending one-clip assembly offers easy installation, disassembly and inspection without compromising cleanability or drainability. Sizing/selection and installation drawing are available.



Flow Ra Pressui wetting ra Impact ra Pattern

Connections

	Units	MIN	IVI a
te	m3/hr	3,5	9
re	Bar	1	3
dius	M		3
dius	M		1,
1S		360°, 270° up	



: 1" & 1 1/2" BPE Clip-On Weld On : Ø25.4 x 1.6mm

#### **MULTIMAGMUN SB & ULTRAPURE**

The Alfa Laval Toftejorg SaniMagnum SB Rotary Spray Head is designed with respect to Self-Cleaning, Self-Draining and Inspectability. Its novel patented One-clip assembly offers easy installation, disassembly and inspection without compromising cleanability and drainability. The Toftejorg SaniMagnum SB is an efficient replacement for the traditional Static Spray Ball as it offers liquid impact on the entire tank wall that lies within the spray pattern – a 270°U or a 360° pattern; both at a lower flow rate at equally low pressure.



Flow Rate Pressure wetting radius Impact radius Patterns

m3/hr	8	14
Bar	1	3
M		4,5
M		2,5
	360°, 270° up	
Clip-On	: 1 1/2"	BPE



Connections

Weld On : Ø38 x 1.6mm

12

40

4

6

3

: Ø50.8 x 1.2mm



Units	
m3/hr	
Bar	
M	
	m3/hr Bar

360°, 270° up

· 2" BPF Clip-On

Weld On



#### **MULTIMAGMUN SB & ULTRAPURE**

The Alfa Laval Toftejorg SaniMega SB Rotary Spray Head is designed with respect to Self-Cleaning, Self-Draining and Inspectability. Its novel patented One-clip assembly offers easy installation, disassembly and inspection without compromising cleanability and drainability. The Toftejorg SaniMega SB is an efficient replacement for the traditional Static Spray Ball as it offers liquid impact on the entire tank wall that lies within the spray pattern – a 270°U or a 360° pattern; both at a lower flow and high flow rate at equally low pressure.



Impact radius Patterns

Connections

#### TJ ROTARY JET HEADS

#### **TJ 20G**

The Toftejorg TJ 20G rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries, the device is suitable for processing, storage and transportation tanks and vessels between 15 and 150 m3. The award-winning design is particularly suitable for hygienic industries that follow European Hygienic Equipment Design Group guidelines.



Flow Rate Pressure wetting radius Impact radius Patterns Connections

Units	Min	Max
m3/hr	5	15
Bar	3	8
M	9	14
M	4	8
	360°	
BSP Female	: 1"	

#### **TJ 40G**

The TJ40G rotary jet head provides 3D indexed impact cleaning over a defined period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries with a strict demand for hygienic tank cleaning. The device is suitable for processing, storage tanks and vessels between 50 and 500 m3 and industries that require a certain level of hygienic design. The TJ40G is the best-in-class in hygienic design and tank cleaning performance.



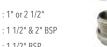
Flow Rate Pressure wetting radius Impact radius Patterns

Connections



: 1" or 2 1/2"

: 1 1/2" BSP







#### **TJ40G DESIGN**

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. These special versions are available:

- Alfa Laval TJ40G-HD for applications where larger amounts of particles in the cleaning liquid are re-circulated over the machine. Its special design ensures that particles do not get trapped inside the machine or damage / block the machine during operation.
- **Alfa Laval TJ40G Burst** with a special burst nozzle design for fast chemical wetting of the tank. Burst cleaning reduces cleaning cycle time and the use of water and chemicals. For more information, see the separate datasheet about the burst technique.



Weld On

Male

Standard spray pattern with self cleaning



Burst Rinse spray pattern with self cleaning



#### **SANIJET ROTARY JET HEADS**

#### SANIJET 20 & SANIJET 20 ULTRAPURE

The Alfa Laval SaniJet 20 is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 5-30 m3 it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The SaniJet 20 minimizes the consumption of water, and cleaning media.



	Units	Min	Max
Flow Rate	m3/hr	1	9,5
Pressure	Bar	5	8
retting radius	M		4,5
mpact radius	M	1,5	4
Patterns		360°	
Connections	Tri-Clamp	: 1"	



#### SANIJET 25 & SANIJET 25 ULTRAPURE

The Alfa Laval SaniJet 25 is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 15 and 150 m3 it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The SaniJet 25 minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.



	Units	MIII	wax	١
Flow Rate	m3/hr	5	15	
Pressure	Bar	3	8	
etting radius	M	9	17	
npact radius	M	4	10	
Patterns		360°		
Connections	Weld On	: 1" & 1	1/2"	



#### RETRACTOR SYSTEMS

#### SSB RETRACTOR

The Alfa Laval SSB Retractor is a pneumatic static spray ball that is retractable, contributing to safe production and non-intrusive tank cleaning in hygienic applications. It is designed to achieve fast and effective cleaning of process equipment, especially where access is difficult or where intrusive cleaning equipment interferes with production.

The SSB Retractor is designed for cleaning straightforward as well as complex installations in hygienic applications, where the process cannot be disturbed by any internal components, including fixed cleaning equipment. It is ideal for use across the dairy, food, beverage, personal care, biotechnology and pharmaceutical industries.

The Alfa Laval SSB Retractor is available with two stroke lengths, 60 mm or 120 mm, and in three versions: air-to-spring, air-to-air, and media-to-spring. All wetted stainless steel components are manufactured from AISI 316L. An optional ATEX version is available for use in potentially explosive environments.

	Units	Min	Max
Flow Rate	m3/hr	1,6	3,3
Pressure	Bar	2	4
wetting radius	M	9	17
Impact radius	mm	60 or 12	20mm
Patterns		360°	
Connections	1	1/2" T/C	



#### CLEANING VALIDATION INSTRUMENTS

#### **ROTORCHECK BASIC AND PLUS**

The Alfa Laval Rotacheck control and validation systems for tank cleaning machines consist of a sensor unit with top cover, o-rings and electrical cable and/or connector. The sensor unit has a sensing device located inside the processing tank and is connected to a sensor board, which processes and communicates the signal to the programmable logic controller (PLC).



The Rotacheck Basic registers the moment when the sensor is hit by the water jet from the cleaning head.

#### **Alfa Laval Rotacheck Plus**

This advanced innovative system features unique built-in teach-in and monitoring functions to verify the proper rotation of the rotary jet head











#### **GAMAJET BB**

#### **Efficient Wine Barrel cleaning**

The Alfa Laval Gamajet BB tank cleaning device combines pressure and flow to create high impact cleaning jets. With a single insertion of the Alfa Laval Gamajet BB, barrels and 208.2 I (55 gal) drums are cleaned in only 2-3 minutes while using only 30-45 litres of water. This device offers highperformance cleaning combined with maximum durability.





#### **GAMAJET 9**

#### Efficent impact cleaning for small tanks and IBCs

The Alfa Laval Gamajet 9 offers compact cleaning for small tanks, totes and intermediate bulk containers (IBCs) in both industrial and hygienic applications. With fewer parts and a highly durable design, the Alfa Laval Gamajet 9 provides superior performance and is the most versatile rotary jet head available. This device readily passes through 76 mm (3") openings and can handle high pressures and temperatures, enabling quick and easy cleaning of small totes/IBCs, tanks, trash carts, and much more.





#### **GAMAJET 7**

#### Powerful tank cleaning for small barrels and drums

The smallest rotary impingement tank cleaning device, the Alfa Laval Gamajet 7 easily fits through a 3.8 cm (1.5") access hole. Capable of operating at both high and low pressures, this device offers quick and easy cleaning of barrels, drums, and other small vessels in a wide variety of industries.

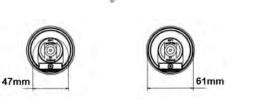




## **GAMAJET A2**

#### Sanitary tank cleaner fits through 50mm (2") opening

Designed to fit through a 5.08 cm (2") sanitary fitting, the Alfa Laval Gamajet A2 is the perfect alternative to time-intensive spray balls and costly manual cleaning. Made of FDA compliant materials, this device is flow-through in design, meaning it requires no grease or oil in the gears. Compact and efficient, the Alfa Laval Gamajet A2 allows for space saving while maintaining the impact, durability, and range required for optimal rotary impingement tank cleaning in sanitary environments.

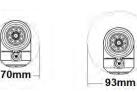


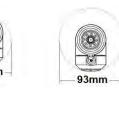
### **GAMAJET A2**

#### Sanitary tank cleaner fits through 50mm (2") opening

Setting high standards for cleanliness is critical in order to maintain product quality and plant productivity. That's why we created the Alfa Laval Gamajet A6 tank cleaning device: to deliver powerful tank cleaning that provides reliable, repeatable, and verifiable results to meet the demands of the various sanitary industries such as beverage, food, dairy, and more. Designed to fit through a 7.62 cm (3") sanitary fitting, the Alfa Laval Gamajet A6 is ready for permanent installation and is the perfect alternative to time-intensive spray balls and costly manual tank cleaning.



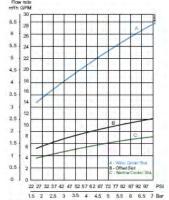




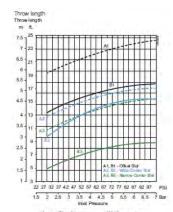
## **PLUSCLEAN®**

#### WALL MOUNTED CLEANING NOZZELS

Alfa Laval PlusClean® is a wall mounted cleaning nozzle designed for cleaning of shadow areas in tanks; e.g. below agitator blades and other tank internals. PlusClean is smoothly integrated into the tank wall. When activated during Cleaning-in-Place (CIP), PlusClean covers cleaning shadow areas with a high impact fan of cleaning media, giving the market's first guarantee of 100% impact cleaning coverage.



A. Wide center slot
 B. Offset slot



#### APPLICATION

There is a broad range of applications within hygiene-critical industries such as food, beverage, dairy and pharmaceutical industries, but likewise applications such as personal care, home care and less hygiene critical applications. PlusClean is the key to ensure high product yield by eliminating any risk of contamination. This is done by targeting cleaning media to the shadow zones for reinforced hygienic tank cleaning. PlusClean is optimal for installation in all tank types and tank sizes with highest hygienic tank cleaning requirements to ensure high product quality.

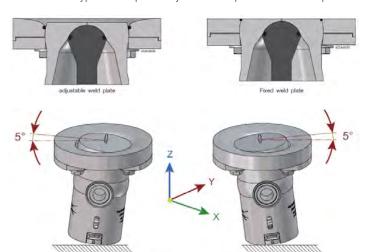
#### BENEFITS

- High product yield with 100% cleaning coverage guarantee
- Low cleaning media consumption
- Installed flush with the tank wall, allowing the unit to be used in tanks with frame type agitators
- Easy to install using the patented adjustable flange connection
- Hygienic design
- Option for actuator & ThinkTop control unit



#### MOUNTING OPTIONS

PlusClean has 2 types of weld plates: Adjustable weld plate and fixed weld plate.



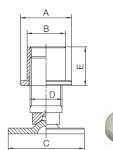


The adjustable weld plate has a curved surface on the tank side of the weld plate and allows adjusting the angle of the cleaning nozzle  $\pm 5^{\circ}$  from the center along all 3 axes. It is drainable only when installed at an angle more than 30°. The adjustable weld plate should beused inapplicationswherethe PlusClean is installed on tank walls and tank bottoms with more than 30° inclination to horizontal.

The fixed weld plate only allows the device to rotate around Z-axis. It is drainable at all angles due to the flat top surface.

#### **LKTC TANK LEG**

The LKTC Tank Leg is capable of supporting maximum static loads of up to 160,000 N within an area of 7,800 mm2. Designed to stand on a base plate, the sphere-shaped tank feet are capable of supporting a maximum load of up to 19 tons.





C	COMPLETE	LEG ONLY	BASE PLATE	Size	Α	В	c	D	E	STATIC LOAD
9	9611710220	9611710290	9611710370	3/4"	38	35,5	58	3/4"	35	75000 N
9	9611710230	9611710300	9611710400	1"	53	39,8	79	1"	40	100000 N
9	9611710250	9611710320	9611710430	1 1/2"	79	65,3	105	1 1/2"	45	160000 N





# **TANK ACCESS COVERS**

## **OVAL DOORS**

PRESSURES

UPTO 2.5 Bar

ELASTOMERS

EPDM SILICONE NITRILE VITON MATERIALS

304 s/s 316L s/s SIZES

440 x 320 mm 535 x 435 mm 546 x 447 mm

510 X 370

542 X 446

532 X 432 FLAT LID

532 X 432

440 X 320











## **ROUND DOORS**













304 s/s 316L s/s

ELASTOMERS

EPDM SILICONE NITRILE VITON

PRESSURES

UPTO 14.7 Bar

SIZE

202 mm 300 mm

306 mm 400 mm 404 mm

418 mm 450 mm 454 mm

498 mm 518 mm

600 mm 620 mm













## **RECTANGULAR DOORS - ROUND DOORS**

PRESSURES

UPTO 1.0 Bar

ELASTOMERS

EPDM SILICONE NITRILE VITON MATERIALS

304 s/s 316L s/s **SIZES**184 x 234 mm

332 x 440 mm 432 x 555 mm

R 332 X 440

R 555 X 432

R 440 X 332

R 235 X 185

R 432 X 555











# TANK AGITATORS AND MIXERS



## **SIDE MOUNTED AGITATORS**

## MATERIALS

316L s/s Standard 304 s/s 904I

SAF 2205 Other materials on request

## ELASTOMERS

EPDM FPM/FEP

Other materials on request

## PROPELLER

DIA: Ø125mm upto Ø1900mm

3.1b Material certification available.

#### **ALS SIDE MOUNTED AGITATOR**



## **TOP MOUNTED AGITATORS**

### MATERIALS

316L s/s Standard 304 s/s 904L SAF 2205

Other materials on request

## ELASTOMERS

EPDM FPM/FEP

Other materials on request

PROPELLER

DIA: Ø125mm upto Ø1900mm

3.1b Material certification available.



## **BOTTOM MOUNTED AGITATORS**

### MATERIALS

316L s/s Standard 304 s/s 904L SAF 2205

Other materials on request

### ELASTOMERS

EPDM FPM/FEP

Other materials on request

## PROPELLER

DIA: Ø125mm upto Ø1900mm

3.1b Material certification available.

### ALB BOTTOM MOUNTED AGITATORS





## **ISO-MIX ROTARY JET MIXER**

## LIQUID, GAS AND POWDER MIXING

- Superior Mixing
- No Mechanical seals
- Lower operating costs
- Integrated tank cleaning solution
- Increased production capacity
- Simple Retrofit
- Blending Liquids / Gases / Powders



IM 10 vessel size 1-10m3



vessel size



IM 20 vessel size 5-200m3



vessel size 10-1000m3



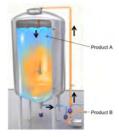




Cleaning



**GAS** Dispertion



Rapid temperature change



Powder addition



# **MAGNETIC MIXER**

## **ALFA LAVAL LEVIMAG & LEVIMAG ULTRAPURE**

#### **ALFA LAVAL LEVIMAG**









LeviMag in operation

The Alfa Laval LeviMag UltraPure is an aseptic magnetic mixer that uses a patented levitating impeller and advanced design to mix down to the last drop and maximize product yield.

Compact, energy-efficient and easy to maintain, it provides dryrunning capabilities and efficient mixing at low speeds, which ensures gentle product treatment, as well as at high speeds for highintensity mixing. This provides greater process flexibility to handle a wide range of fluid types and mixing duties.

Its open design and low-speed rotation during cleaning contribute to no dead zones, effective residue removal and minimize contamination risks from wear particles. All this contributes to fast return on investment and maximum product yield in tanks ranging in size between 30 litres and 40,000 litres.

It is supplied with Alfa Laval Q-doc, a comprehensive documentation package that provides full transparency of the entire supply chain and helps make the validation process easy.

#### **APPLICATIONS**

Alfa Laval LeviMag UltraPure offers effective mixing for multiple processes, such as those involving serums, vaccines, plasma fractions, bacteria and cell cultures, and APIs, in the biotechnology, pharmaceutical and other industries with demanding sterile or high-purity applications.

## HOW IT WORKS

A radial turbine installed inside the tank is rotated via the torque from a magnetic coupling. This creates mixing of the fluid inside the tank. The patented levitated design of the Alfa Laval LeviMag UltraPure impeller makes the mixer fully drainable and able to run dry; it can therefore mix to the last drop, securing maximum yield.

The unique design of the Alfa Laval magnetic coupling ensures the levitation of the impeller at all times. This enables the complete drainability of process fluids and the free flow of CIP liquid and steam around all parts of the mixer, thereby ensuring thorough cleaning. Impeller levitation also eliminates axial wear.

The unique design of the Alfa Laval magnetic coupling ensures the levitation of the impeller at all times. This enables the complete drainability of process fluids and the free flow of CIP liquid and steam around all parts of the mixer, thereby ensuring thorough cleaning. Impeller levitation also eliminates axial wear.

The eight-winged impeller design ensures balanced operation at very low speeds and minimize wear of the bearings (2). Male bearings can easily be replaced with a bearing tool.

# MIXING TECHNOLOGY



## **HYBRID POWDER MIXER**

## APPLICATION

The Alfa Laval Hybrid Powder Mixer is a patented hygienic mobile unit that both disperses powders into liquids quickly and efficiently and pumps the resulting solution at outlet pressures of up to ~5barg, all using a single motor. This versatile, easy-to-use mixer produces homogeneous products at high dry matter concentrations and high productivity.

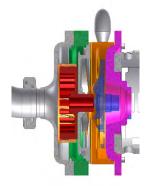
### **STAGE 1 (ROTOR-STATOR STAGE)**

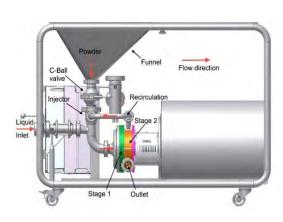
After powder is in the funnel, the valve (C-Ball valve) under the funnel is opened. This is the only valve that the operator must control during mixing. The injector positioned under the valve creates an under pressure (over the flow from the recirculation pipe from stage 2) in the funnel outlet. The injector makes the pre-blend and draws the powder into the rotor-stator and blending the powder and liquid into a homogenous mixture.

#### STAGE 2 (PUMP STAGE)

An impeller pumps the powder-liquid mixture at pressures of up to 4 bar back to the tank while part of the powder-liquid mixture is sent through the injector back to Stage 1.







## **STATIC INLINE MIXERS**

## SANITARY HELICAL STATIC MIXER

Sanitary design helical static mixing units are available in 1" – 3-1/2" tubing sizes. They are of sanitary design with triclamp flanges suitable for use in the food, pharmaceutical, cosmetic, beverage and other industries.



### SANITARY SEGMENT STATIC MIXER

Segment style inline static mixer. Designed to allow for easy extention of mixing capacity by simply adding another element. They are of sanitary design with tri-clamp flanges suitable for use in the food, pharmaceutical, cosmetic, beverage and other industries.



#### **HELICAL STATIC MIXING ELEMENTS ONLY**

Helical mixing element assemblies in metal construction are available in 316L S/S to fit virtually any pipe size. Standard sizes are made to fit Sch. 40 pipe, however mixing elements can be made to fit most pipe diameters. Sizes range from 0.25" – 12" diameter.



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# **MIXING TECHNOLOGY**

## AMPCO PM POWDER INDUCTION BLENDER

- Blend wet and dry ingredients together quickly and precisely with the Ampco PM Powder Mixer. The PM Powder Mixer will save time and money by providing optimal mixing consistency and reduced processing time. The PM Powder Mixer is set in-line so there is no limit to the batch size.
- Mixing begins in the SP pump the mixture flows through a short transfer tube into the Shear Blender.
- The SBH Shear Blender runs at high speed to thoroughly continue to mix the fluid and powder.







## **AMPCO SB SERIES SHEAR PUMPS**

### SB SHEAR BLENDER

The SB Shear Blender offers flexibility for a variety of products. The clearance of the Ampco SB Shear Blender can be adjusted with the use of simple shims (provided) to get the blend quality desired. To avoid damage to the product, the SB Shear Blender is the best choice for sensitive applications.

#### **MODEL SB**

Max Flow : 45.4 m3/Hr Max Discharge : 3.44 Bar



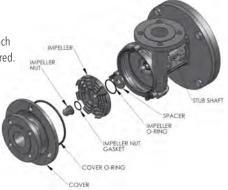
## SBH SHEAR BLENDER

The SBH Shear Blender maximizes shear-area by having several rows of rectangular teeth that mesh with each other at close clearances. This is the best blender for improving process time when the highest shear is desired.

## MODEL SBH

Max Flow : 45.4 m3/Hr Max Discharge : 3.44 Bar





### SBI SHEAR BLENDER

The SBI Shear Pump moves the product with considerable capacity and pressure capabilities. This is achieved through a hybrid design of a fine-tuned impeller paired with rectangular shear teeth. Users will be surprised at the performance of this pump as a replacement to a feed pump and blender setup for certain applications.

## MODEL SBI

Max Flow : 45.4 m3/Hr Max Discharge : 6.9 Bar





# **GASKETED PLATE HEAT EXCHANGERS**





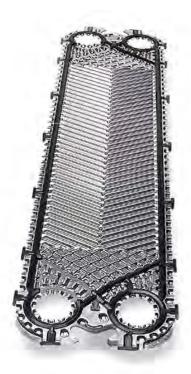
Suitable for a wide range of applications in most industries, gasketed plate heat exchangers are a compact and efficient heat transfer solution. Alfa Laval's gasketed models are designed for exceptional control, which makes them ideal for heating and cooling duties in demanding hygienic processes.

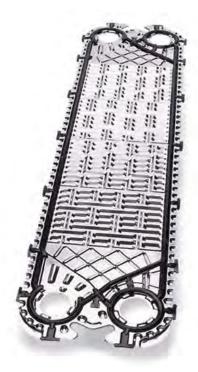
#### FRAME

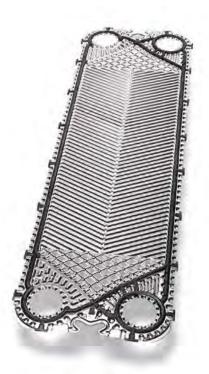
Holding the plates together are sturdy, pressure-graded frames with hygienic and labour-saving features. These offer great flexibility for expansion or rebuilding. The stainless steel versions are designed according to the most demanding hygienic standards.

#### PLATE TYPE

The plates themselves are available in different geometries and patterns as well as choice of materials. These include Alfa Laval's standard plates, WideStream plates and Gemini plates. Gasket material ranges from nitrile butadiene rubber (NBR) to ethylene propylene diene monomer (EPDM) rubber, which enable a perfect match for the application temperature and characteristics.







Standard: The most commonly used plate types for hygienic applications are the Alfa Laval M, T and Clip plate types. Their ideal press depth and relatively few contact points prolong operating times, while a unique distribution area ensures uniform flow over the entire plate surface. Clip plates on Alfa Laval FrontLine are specifically designed for heat-sensitive food products.

WideStream: Our WideStream plates with clipon gaskets have very few contact points, which helps prevent blockage and results in longer uninterrupted operating times. Available only for Alfa Laval FrontLine, the plates are specially developed for the pasteurization of fruit juices and other products containing a limited amount of pulp and fibres. Gemini: With their double walls, our Gemini plates combine excellent heat transfer with increased protection against the mixing of fluids. The plates consist of two sheets that are formed together, which prevent the media from mixing, even in the event of a cracked plate. Gemini plates are available on both Alfa Laval FrontLine and BaseLine models.

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# **GASKETED PLATE HEAT EXCHANGERS**

## **ALFA LAVAL FRONTLINE**



The Alfa Laval FrontLine is a top-of-theline series of plate heat exchangers. Able to meet the highest demands on hygienic control, it features a superior and flexible design that allows easy handlingand modification. Among the main applications for the Alfa Laval FrontLine are dairy pasteurization, yoghurt cooling, UHT treatment and work with heatsensitive products. The Alfa Laval FrontLine frames can be supplied in stainless steel and silvercoated versions, and the Clip plates are available in alternative materials for challenging food-processing tasks. In most cases their Clip plates can be cleaned via CIP (cleaninginplace), using the same flow as in the processitself.

## **ALFA LAVAL TS6-M**

Thanks to its unique plate geometry, Alfa Laval TS6-M series of plate heat exchangers is thermally optimized for steam condensation duties. This makes it useful not only for heating water, but also for heating CIP (cleaning-in-place) solution by means of steam. Alfa Laval TS6-M plate heat exchangers are available with either stainless steel or epoxypainted frames.





## ALFA LAVAL ALFACOND AND ALFAVAP

A smart alternative to bulky and expensive falling film condensers and evaporators, these compact solutions feature deep channels, large ports and laser welding to enable vacuum and low-pressure evaporation and condensation for aqueous and organic systems. The Alfa Laval AlfaCond plate condenser is designed for condensing vapours into liquids at low pressure. The Alfa Laval AlfaVap plate evaporator optimizes evaporation processes and provides a much higher thermal efficiency than conventional units.





## **ALFA LAVAL BASELINE**

With its cost-effective frame design, the Alfa Laval BaseLine series of plate heat exchangers is a competitivechoice for process and utility duties. Working at pressures up to 10 bar, it handles not only heating and cooling, but also pasteurization. Typical Alfa Laval BaseLine applications include simplepasteurization, raw milk cooling, media heating/coolingand CIP (cleaning-in-place) heating.



## **ALFA LAVAL M-SERIES AND T-SERIES**

The Alfa Laval M- and T-series can handle the same applications as the Alfa Laval BaseLine series. The difference is that the M- and T-series have epoxypainted mild steel frames instead of the stainless steel frames used for the BaseLine series and can handle design pressures that exceed 10 bar. Perfect for general product heating and cooling duties, these plate heat exchangers can also be used for pharmaceutical water systems and CIP heating.



# **FUSION-BONDED PLATE HEAT EXCHANGERS**

## **ALFA LAVAL ALFANOVA**

The Alfa Laval AlfaNova plate heat exchangers are the first in the world to be manufactured from 100% stainless steel. Thanks to AlfaFusion – Alfa Laval's revolutionary technology for bonding stainless steel components – they can withstand even extreme temperatures and pressure fatigue conditions. The exceptional performance of the Alfa Laval AlfaNova plate heat exchangers suits demanding duties in a broad range of industrial applications and utilities. Often employed to heat water or CIP (cleaning-in-place) solution by means of water and steam, they can also be used for general heating and cooling duties.





# **BRAZED PLATE HEAT EXCHANGERS**

## **ALFA LAVAL CB-SERIES**

The Alfa Laval brazed plate heat exchangers are extremely compact – a result of high heat transfer coefficients, small hold-up volumes and the use of thin materials. The stainless steel plates are brazed into a package without the use of gaskets, with copper serving as the brazing material. Operating costs are reduced by the heat exchangers' high thermal efficiency, while the rectangular shape and front-positioned connections make for easy installation. Resistant to heat, pressure, vibration, and above all corrosion, brazed heat exchangers are perfect in utilities such as heating water with steam.



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# **TUBULAR HEAT EXCHANGERS**

The pharmaceutical industry requires exceptional certainty, not only when it comes to product hygiene, but also when it comes to isolating products and media. To meet the industry's rigorous demands, Alfa Laval offers specially developed, high-quality tubular heat exchangers with superior hygienic design, securing full microbial control and eliminating the risk of cross-contamination. Moreover, these heat exchangers come backed by comprehensive documentation packages.





## **ALFA LAVAL PHARMA-X**

The Alfa Laval Pharma-X tube-in-tube heat exchanger is a compact heat exchanger module for point-of-use cooling in the pharmaceutical water system, mainly for water for injection (WFI) and purified water (PW). Its unique design with no internal welds eliminates the risk of contamination between the product and cooling media.

Full drainability on the product side together with high shear force and high turbulence minimize the risk of bio-film build-up and contribute to optimal heat transfer efficiency. Fast and efficient, the Alfa Laval Pharma-X makes cold water available within seconds thereby minimizing waste and reducing costs.

## **ALFA LAVAL PHARMA-LINE**

The Alfa Laval Pharma-line range is a double tube sheet (DTS) shell-and-tube heat exchanger that provides full drainability and prevents the risk of crosscontamination. Its bundle of seamless tubes handles the flow of product media, with service media running outside the tubes in a crossflow. Its flexibility in design, size and material make the Alfa Laval Pharma-line an ideal and cost-efficient choice for demanding hygienic applications. Typical uses include water systems, water for injection (WFI), purified water (PW) and Cleaning-in-Place (CIP) systems, as well as general product heating and cooling duties.





# **SCRAPED SURFACE HEAT EXCHANGER**





## **CONTHERM SCRAPED SURFACE HEAT EXCHANGER**

For continuous processing of viscous and other challenging products, the Contherm® range of scraped-surface heat exchangers means more for your production. More thermal efficiency. More yield. More quality. And ultimately, more profitability. When it comes to your business, who doesn't want more?

Contherm® scraped surface heat exchangers are a robust solution for a range of industries and applications: from food, chemicals and pharmaceuticals to health and beauty. Based on Alfa Laval's decades of expertise in thermal exchange, each unit is specially engineered to handle viscous, heat sensitive, crystallizing or sticky products, as well as those with sensitive particulate matter. Alfa Laval's rotating scraping technology continuously removes fouling material during processing.

Gentle handling preserves the quality of shear-sensitive products while simultaneously providing high efficiency with a larger flow area and reduced pressure drop.





# **SCRAPED SURFACE HEAT EXCHANGER**





#### **Contherm Core**

Contherm® Core is a scraped-surface heat exchanger (SSHE) for cost-efficient production of low to medium-viscosity products with or without particles. It provides the reliable thermal performance of a standard Contherm®, but with added savings for less demanding applications.



## **Contherm HP**

Contherm® HP is a single-wall scraped-surface heat exchanger (SSHE). Designed for continuous and semi-continuous processing under high product pressures, it is the most robust design in the Contherm® family. The HP model is suitable for numerous products from a variety of industries and can support an extremely broad range of viscosities.

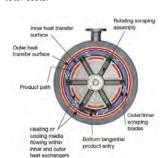


### **Contherm Max**

numerous products, with or

without particles.

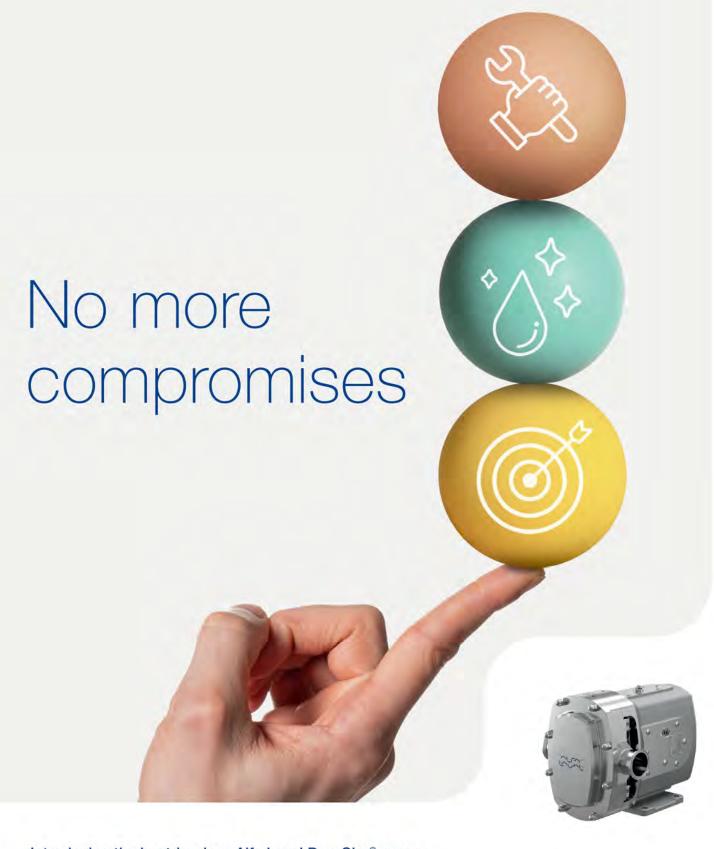
Contherm® Max is a double wall scraped surface heat exchanger designed to provide high-capacity production of low to medium-viscosity and crystalline products as well as those with large particles. Thanks to Alfa Laval's advanced double-wall design, Contherm® Max double wall scraped surface helps boost yield while simultaneously ensuring efficient thermal performance and low total costs.



## Convap scraped surface evaporator

Convap® is a single-wall, two-phase scraped-surface evaporator (SSE) with high efficiency for high-viscosity and high-fouling material. It has been specially designed to effectively concentrate products to extremely high solids levels.





## Introducing the best-in-class Alfa Laval DuraCirc® pump

In hygienic applications, use of circumferential piston pumps (CCPs) has always meant settling for compromises. But Alfa Laval DuraCirc is something different. It's the market's first CPP that delivers the perfect balance of durable reliability, high efficiency and superior hygienic performance that's easy to service.

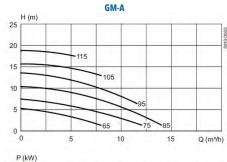
In addition to a class-leading range of flow and pressure capabilities, DuraCirc comes standard with globally recognized hygienic certification. The innovative design also includes features that make cleaning and maintenance faster, easier and more dependable.

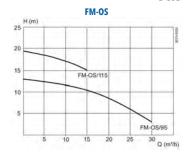
The future of pumping is on the move. Join us at www.alfalaval.com/DuraCirc – and stop settling for compromises.



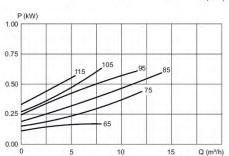
# **CENTRIFUGAL PUMPS**

## FM-OS AND GM-A CENTRIFUGAL PUMPS





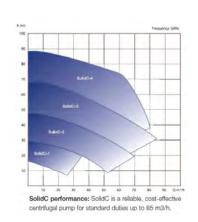
The FM-OS and GM centrifugal pumps series are economical alternatives for industries in which acid-resistant steel is required. Specifi cally designed to handle specifi capplications at low capacities, these centrifugal pumps are solid, cost-effective solutions for handling acidic products.







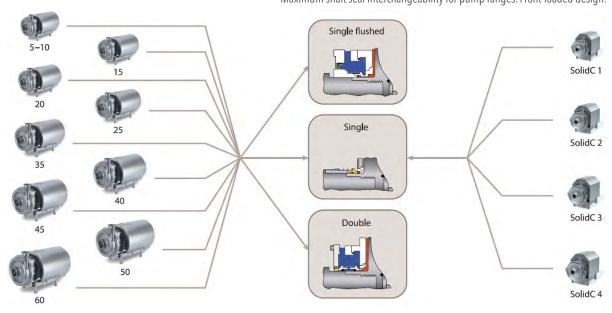




## **SOLID-C CENTRIFUGAL PUMP**

The SolidC pump series is a reliable and costeffective solution for simple transport duties up to 85 m3/h. It utilizes the same mechanical shaft seal found in our LKH series, which is frontloaded and easily replaced without removing the backplate. SolidC pumps are available in four sizes and comply with 3-A, CE and EHEDG requirements.

Maximum shaft seal interchangeability for pump ranges. Front-loaded design.

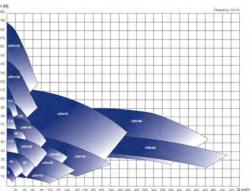


Identical shaft seal for easy maintenance and flexibility. Only one size of shaft seal is required for all LKH standard models (LKH 5–60) and SolidC (SolidC 1–4), which makes keeping the right parts in inventory simple and inexpensive. Plus, a single mechanical seal can easily be changed to a flushed or double mechanical seal in minutes with just a few extra components.

# **CENTRIFUGAL PUMPS**

## **LKH CENTRIFUGAL PUMPS**





The Alfa Laval LKH Centrifugal Pump is a premium pump for use in hygienic applications. To increase process productivity, it is distinguished by high efficiency, gentle product treatment, chemical resistance, and a wide range of flow rates, pressures and options.

Precision-engineered, the LKH pump delivers greater energy efficiency than similar pumps. Its optimized design, premium motor, tight tolerances and advanced impeller design minimize recirculation and reduce energy consumption.

Alfa Laval LKH Ultrapure



LKH UltraPure centrifugal pumps deliver maximum uptime and high efficiency, and offer the benefits of easy cleanability and thorough documentation. They are designed to meet the specific demands of the biotech and pharmaceutical industries. All Alfa Laval Ultrapure equipment are delivered with the standard Alfa Laval Q-doc documentation package.

Alfa Laval LKHP-F



The LKHPF pump is a highly efficient and economical centrifugal pump, specially designed for high inlet pressures, e.g. for use in filtration systems. The LKHPF pump meets the requirements of sanitary and gentle product treatment and chemical resistance, and is available in nine sizes, LKHPF-10, -20, -25, -35, -40, -45, -50, -60, -70.

Alfa Laval LKH Multistage

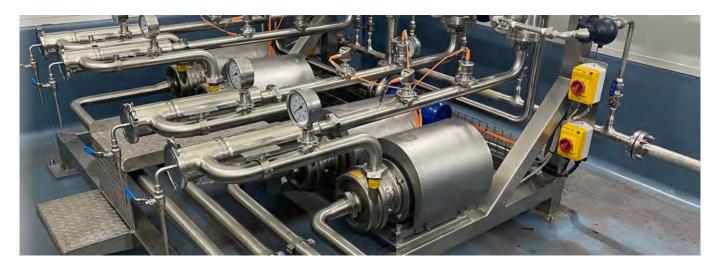


LKH-110 and -120/P are highly efficient and economical multistage centrifugal pumps, which meet the requirements of sanitary and gentle product treatment and chemical resistance. Both the LKH-110 and the LKH-120/P are available in 3 sizes, LKH-112, - 113, -114 and LKH-122/P, -123/P, -124/P respectively, for 2, 3 and 4 stages.

Alfa Laval LKHI



The LKHI pump is a highly efficient and economical centrifugal pump, specially designed for inlet pressures up to 16 bar. LKHI meets the requirements of sanitary and gentle product treatment and chemical resistance, and is available in nine sizes, LKHI-10, -15, -20, -25, -35, -40, -45, -50, -60.



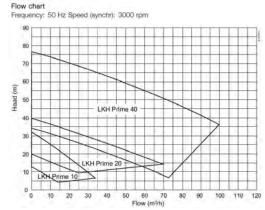
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# **CENTRIFUGAL PUMPS**

## **PREMIUM SELF PRIMING PUMPS**





Alfa Laval LKH Prime is a cost-effective self-priming pump that reduces energy consumption and CO2 footprint.

Trimming the impeller to match the exact duty conditions lowers power requirements and installation costs.

Alfa Laval LKH Prime is up to 60% more efficient than traditional liquid ring pumps and up to 25% more efficient than other air-screw pumps – over a wider performance envelope (see graph). It operates with 80% less noise than traditional liquid ring pumps.

#### **LKH Prime**



Alfa Laval LKH Prime is an efficient, versatile and hygienic self-priming pump that uses a combination of air-screw technology and advanced design to meet the most stringent requirements in a range of hygienic industries including food, dairy, beverage, home and personal care. Primarily used for Cleaning-in-Place duties containing entrained air, it can also pump product, reducing capital investment.

#### **LKH Prime ultrapure**



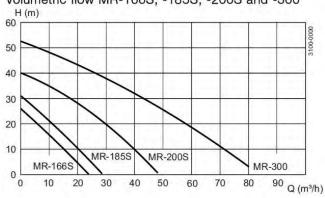
The LKH Prime UltraPure is a highly efficient self-priming pump, which meets the requirements of pharmaceutical industries. The ability to evacuate air from the suction pipe combined with a low noise level and high pumping efficiency makes the LKH Prime UltraPure ideal for tank emptying and CIP return applications. With verified effective CIP cleanability, LKH Prime UltraPure can be used as a product pump as well.

## MR LIQUID RING PUMPS



MR is a liquid-ring pump specially designed for pumping liquids containing air or gas. The pump is for use in food, chemical, pharmaceutical and similar industries. The pump is mainly used for CIP-return application.

## Volumetric flow MR-166S, -185S, -200S and -300



# POSITIVE DISPLACEMENT PUMPS



## **ROTARY LOBE PUMPS**

Alfa Laval SRU



The Alfa Laval SRU Rotary Lobe Pump is a reliable positive displacement pump for the gentle handling of sensitive process fluids. The pump is carefully engineered to provide reliable performance, trouble-free operation and superior energy efficiency for demanding applications. It is an excellent choice for duties that require contamination-proof pumps to meet high standards of hygiene, low-shear and low-pulsation operation. The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place.

Alfa Laval SX



The Alfa Laval SX Rotary Lobe Pump is designed with optimized pump head geometry and multi-lobe rotors to ensure low-shear operation with minimum pulsation. This makes the SX the best choice for maintaining the integrity of delicate products. The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place (CIP) and Sterilization-in-Place (SIP).

Alfa Laval SX Ultrapure



The Alfa Laval SX UltraPure Rotary Lobe Pump is designed with optimized pump head geometry and multi-lobe rotors to ensure low-shear operation with minimum pulsation. This makes the SX UltraPure the best choice for maintaining the integrity of delicate products in high-purity applications. The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place (CIP) and Sterilization-in-Place (SIP).

Alfa Laval Optilobe



The Alfa Laval OptiLobe Rotary Lobe Pump is a cost-effective alternative for general applications that require gentle product treatment and easy serviceability. Versatile, dependable and energy efficient, this hygienic positive displacement pump enhances both process flexibility and operational reliability. The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place.

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# **POSITIVE DISPLACEMENT PUMPS**

## **CIRCUMFERENTIAL PISTON PUMPS**

## Alfa Laval DURACIRC



The Alfa Laval DuraCirc delivers the perfect balance of durability, reliability, high efficiency and superior hygienic performance. Combined with design features enabling simple service, the DuraCirc keeps process running. In additional to a class leading range of flow and pressure capabilities, DuraCirc comes with globally recognized hygienic certification. The innovative design also includes features that make cleaning and maintenance faster, easier and more dependable.

Alfa Laval DURACIRC aseptic



The Alfa Laval DuraCirc Aseptic delivers the perfect balance of durability, reliability, high efficiency and superior hygienic performance. Combined with design features enabling simple service, the DuraCirc Aseptic keeps process running. In additional to a class leading range of flow and pressure capabilities and globally recognized hygienic certification, DuraCirc Aseptic specification allows for a sterile environment to be maintained within the pump. The innovative design also includes features that make cleaning and maintenance faster, easier and more dependable.



### Supreme Performance

Engineered for durability, reliability and efficiency to extend the boundaries of your performance



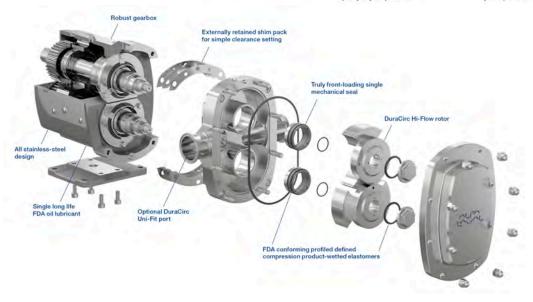
## Superior Hygiene

Safely meets industry hygienic demands, assuring the integrity of your processes and the quality of your products



### Simpler Service

Innovative design features make maintenance faster and easier, increasing uptime in your operations



# TWIN SCREW PUMPS



#### **Alfa Laval Twin screw**

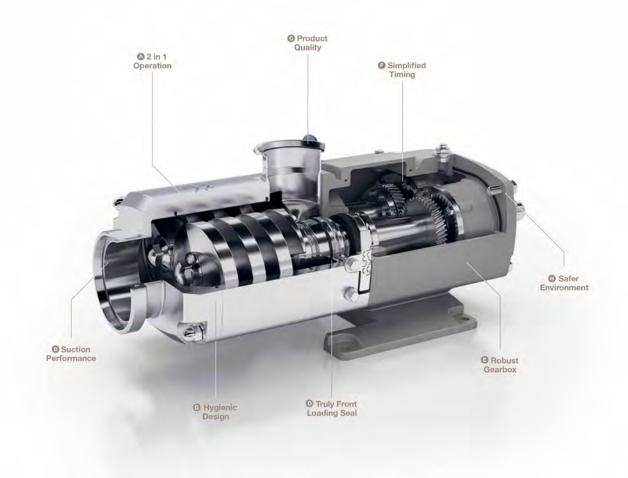




The Alfa Laval Twin Screw Pump combines process duties typically handled by positive displacement with Cleaning-in-Place (CIP) duties typically handled by centrifugal pumps. This provides a robust and reliable platform that offers greater process flexibility.

Designed for process flexibility, the Alfa Laval Twin Screw Pump is built on a robust, reliable platform that meets stringent hygienic standards. It is capable of handling both product transfer and CIP. Its low pulsation characteristics and excellent solids-handling capability reduce the risk of product damage, thereby improving product quality.

The pump is designed according to the most stringent hygienic design standards and with verified, effective CIP.





# **GATHER MAGNETIC DRIVE DOSING PUMPS**

## **DOSING AND PROCESS PUMP**



GATHER magnetic drive gear pumps are designed for dosing as well as process pump operations. They are complemented by the Wankel (rotary piston) pump ensuring excellent conveying and pressurizing performance. The distinctive mark of these hermetically sealed pumps is long service life and non-pulsation dosing, especially of non-lubricating liquid such as water, salt solutions and solvents but also of acid and caustic solutions.

 Viscosities
 : 0,1 to 2000 mPa s (cP)

 Temperature
 : -200°C to 450°C

 Volume flow
 : 20 ml/h to 4000 l/h

Pressure : to 20 bar

## MINI CENTRIFUGAL PUMP



This magnetically coupled mini process pump from GATHER Industrie GmbH is a modern process pump for the pulsation-free metering, pumping and circulation of water, salt solutions, acids, alkalis and solvents.

The delivery rate is adjustable both by metering valve and frequency converter. Its combination of robust, proven journal bearing technology (including efficient cooling/liquid circulation) and the maintenancefree, hermetically sealed magnetic coupling from the GATHER gear pump in a simple centrifugal pump design creates a low-cost, sturdy, reliable and safe multipurpose pump.

 Viscosities
 : 1 to 500 mPa s (cP)

 Temperature
 : 0°C to 85°C

 Volume flow
 : 0,6 ml/h to 180 l/h

Pressure : to 10 bar

## MINI CENTRIFUGAL PUMP



The magnetic drive GATHER gear and turbine pumps are designed for both dosing and process pump service. They are complemented by the Wankel (rotary piston) pump ensuring excellent pressurizing performance. The unique characteristic of these hermetically sealled pumps is long service life and non-pulsation dosing, epecially of non-lubricating liquid such as water, salt solutions and solvents but also of acid and caustic solutions.

 $\begin{array}{ll} \mbox{Viscosities} & : 0.4 \mbox{ to } 100 \mbox{ mm}^2/\mbox{s (cSt)} \\ \mbox{Temperature} & : -200\mbox{°C to } 450\mbox{°C} \\ \mbox{Volume flow} & : 60 \mbox{ l/h to } 3600 \mbox{ l/h} \\ \end{array}$ 

Pressure : to 5 bar



# **CRAFT BREWERY SOLUTIONS**

## **ROLEC DH - DRY HOPS ADDITION SYSTEM**

DH90



The ROLEC DH units utilizes the Ampco SBI pump to recirculate a fermenter and simultaneously induce dry hop pellets into the stream of beer. The pellets are held in a pressurised chamber, which is purged of air using carbon dioxide (CO2). Pellets can be induced into fermenting, finished, or crashed beer. The shear pump creates a differential pressure for induction of the pellets from the hop vessel. The pellets are chopped to just the right size so they can settle during the dry hop holding period.

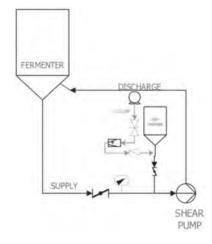
ı	MODEL	PELLET CAPACITY	PUMP	/	RECIRCULATION /MIN	PORT SIZE	MOTOR
	DH45	20kg	SBI-R10		2.9 bbls / 3.4hl	2" x 1.5"	4.0kW
	DH90	40kg	SBI-R10		2.9 bbls / 3.4hl	1.5"	4.0kW
	DH250	120kg	SBI-R20		3.7 bbls / 4.3hl	2"	7.5kW

- A glass top manway allows the user to ensure the pellets are moving
- Guages and sightglasses aid the user in monitoring indction and pressures
- Everything needed for pellet induction is contaned on the ROLEC DH.
- All components are sanitary and CIP-able (no additional CIP pump is required.)
- The fully portable DH can be used on many fermenters and fits well in cramped cellars.
- Recirculation can be done as long as desired. (Ampco recomends 3-4 fermentation turnovers)
- Improved aroma and flavour profile.













Suspended hop particles



Hops particles after settling

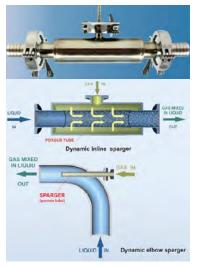


No Additional CIP pump is required

# **CRAFT BREWERY SOLUTIONS**

## **GKN SPARGING DEVICES**





The GKN filters are produced by an Isostatic com-pacting process, which results in outstanding homo-geneous pore size distribution with excellent burst and collapse resistance, based on seamless design. The high mechanical strength is leading to complete self-supporting structures.



**GKN SPARGER** 

**Conventional Sparging units** 

## **SEPERATION MODULES**



## Alfa Laval BREW 250

The Alfa Laval BREW 250 is a compact separation module, which features Alfa Laval's unique fully hermetic design. The airtight design is achieved through a combination of a hollow spindle inlet, a hermetically sealed outlet and a separator bowl that is completely filled with liquid.



## Alfa Laval BREW 80

The Alfa Laval BREW 80 is a compact plug'n play separation module with a very small footprint, which reduces the amount of floor space needed in breweries.

## **BREWERY MODULE PUMPS AND CART PUMPS**





## AIR OPERATED DOUBLE DIAPHRAGM PUMPS

## MURZAN

#### PI-50 DIAPHRAGM PUMP



The Murzan PI 50 is the only diaphragm pump specifically designed to meet the special requirements of the sanitary industry. High efficiency oil free air valve, maintenance free check valve systems, and total visual inspection of all wetted parts give the user a safe and efficient transfer of foods, cosmetics and pharmaceuticals. EHEDG, USDA listed, FDA Approved, the PI 50 series is manufactured to meet general 3-A standards.

Our unique design allows for total visual inspection of all wetted parts. There are no blind spots or hidden areas for bacteria to grow. Simply remove the manifold clamps and chamber clamps for complete disassembly and cleaning.

- Easy to sterilize and clean in place (CIP able)
- Design allows for complete visual inspection of the wetted parts
- Self Priming up to 7.3m
- Pneumatic
- · No mechanical seals

- Ability to run dry without damage
- Maintains product integrity
- Can pump viscosities up to 150,000 CPS
- Solids upto 150mm
- Portable





Mobility Option



Ball Valve



Flapper Valve



Mushroom Valve

#### DUS-50 Drum Unloading Systen



The Murzan DUS (Drum Unloading System) is the ultimate drum unloading solution for emptying the most viscous materials from various types of containers. The containers can be made of metal, plastic, or fiber.

The DUS will reduce your total unloading time and labor requirements.

The DUS is made up of 100% Stainless Steel materials, including the frame and cylinders. The unit is provided with a NEMA 4X control panel that contains all the pneumatic components.





The Murzan TUS (Tote Unloading System) has been successfully used for over thirty years in unloading highly viscous products from totes and bins. These 300-gallon totes can be made of wood, plastic, or cardboard.

The TUS is operated through a PLC (programmable logic controller), with electropneumatic controls, contained in a NEMA 4X panel.

Empties 300 gallons of the heaviest and most viscous products, such as 33° Brix Tomato Paste in less than 12 minutes without adding any water.

KUS Kettle Unloading System



The Murzan KUS (Kettle Unloading System) offers the cleanest solution for unloading contoured high shear mixing bowls, primarily in the bakery industry. The unit provides sanitary, hands on solution for transferring products such as batters, icings, and fillings that may contain delicate solids.

The Murzan KUS can be used to feed multiple depositors from one location. This unit is portable and can be cleaned-in-place. The follower plate can be custom made for different shape containers. The unit is also built in 100% Stainless steel, with all its electro-pneumatic controls contained in a NEMA 4X panel

**CBTU Marinated Products** 



The Murzan CBTU (Marinated products transfer unit) can increase yields, increase production, reduce labor costs and reduce sanitation costs. It can be accomplished without compromising the integrity of your product.

The CBTU is designed to pump directly from your vacuum tumbler discharge to your IQF, frying lines, or breading tumbler. The unit allows you to pump chicken tenders, fillets, or disjoined wings without damage. We have successfully pumped product at a rate of 10,000 pounds an hour, at a distance of up to 100 feet.

## AIR OPERATED DOUBLE DIAPHRAGM PUMPS

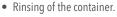
## MURZAN

DUS-50 Drum Unloading System



The Murzan AB-70 series (AB72 and AB76) pneumatic suction wand eliminates the risk associated with the handling of suction wands. There is no need to remove the drums individually from the pallet, simplifying the unloading operation. The use of a joystick in the controls allows the user to reach any of the four drums on the pallet. The suction wand is lowered into the drum via switch. This system allows us to use any size suction wand for optimal unloading.





- Non-return suction wand.
- Mechanism for preventing suction of drum liners.
- CIP holster that enables cleaning of the wand, hose, and pump at the same time.
- Ability to unload a pallet while you stage a second one.
- Tote tiller for unloading square totes.
- Ability to use with tote containers.





- The Murzan ABDT is a high capacity drum unloading system, used for transferring heavy products such as beverage bases, juice concentrates, and tomato pastes.
- The Murzan ABDT is the ultimate approach for unloading multiple containers at the same time.
- The Murzan ABDT is a user-friendly system operated by means of a PLC and touch screen. A single operator can easily control the entire unloading sequence.
- The system eliminates removing your containers from the pallet and drastically increases your production capabilities.
- The ABDT offers rinse and metering capabilities.
- Optional load cells/metering integration makes the ABDT a powerful batching system.

## PI-50 POULTRY PUMP



The Murzan PO-50 Poultry Pump is the only sanitary diaphragm pump specifically designed with the needs of the poultry industry in mind. This pump can easily handle solids up to 4" (10 cm) in diameter or 7" (17 cm) long without damaging the product.

The Murzan PO-50 Poultry Pump reduces water usage for every pound of product processed. The pump works commonly in two shifts of production and one shift of cleaning at a very low maintenance cost.

#### CAPACITY

Capacities up to 240 chicken necks per minute in solution may be achieved depending on the concentration of solids and total dynamic head (TDH) of the system. Rates for smaller solids will be greater subject to the same conditions.

## APPLICATIONS

- Complete Feet
- Paws
- Necks with or without skin
- · Chicken skin without water
- Heads

- Intestine pack
- Blood
- Gizzards
- Livers
- Hearts





# SERVICE DIVISION







FULLY TRAINED

QUALIFIED

PROFESSIONAL

CERTIFIED

COMPLIANT

CALIBRATED

FULLY EQUIPPED

















# SERVICE DIVISION











BY \_\_\_\_\_ DATE \_\_\_\_\_
NEXT CHECK DATE \_\_\_\_\_









Matrix Process Solutions Pty Ltd provides an array of capabilities for the preventative maintenance and repair for all its equipment and other process equipment brands.

All our service engineers are fully trained and attend regular manufacturer conducted factory training programs to ensure your equipment is performing to its optimum capacity and required standards.

We offer service facilities nationwide allowing us to deliver local support fast, to ensure your equipment is running at optimum performance.

**SERVICE AGREEMENTS** 

TRAINING AND TECHNICAL SUPPORT
PREVENTATIVE MAINTENANCE PROGRAMS

**INSTALLATION** 

**LOAN EQUIPMENT** 

**ON SITE COMMISSIONING ASSISTANCE** 

**BREAKDOWN SERVICE** 

**HEAT EXCHANGER SERVICING** 

**HEAT EXCHANGER TESTING AND CERTIFICATION** 

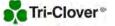
**PROCESS VALVE SERVICING** 

**PUMP SERVICING** 









































Matrix has engineered the total service concept. Our projects division assists in the design, delivery and ongoing support of the Matrix range of products.

### Consulting

Acessessing requirements and building solutions

## **Engineering**

Design and construction of the solution to specification

## Supply

Product required onsite on time

## **Install and commission**

Onsite work and startup

## **Training**

Handover and training to site personnel

## Support

After commissioning advice and onsite support



Project manage the installation of a new Alfa Vap process.







Project manage the installation of a new process.









System Design and installation of new product transfer and storage process.











Designed and Installed new Yoghurt processing facility.







Designed and Installed complete process, incorporating a full product recovery system to maximise product yield and control effluent discharge.











Designed and Installed of 12 x Toftejorg TZ 79 cleaning heads into Steeping Vessels.



















Designed and installed a new wort chilling process to reduce wort knockout times by 10–20%.







Designed and installed milk receival system and increased capacity of the milk processing plant through design and automation upgrades.









Design and Installation of new product receival and distribution system. Incorporating a LIAG product recovery (pigging) system and CIP skid.





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Design and Install product distribution system using new Alfa Laval OS twin screw pumps and LIAG product recovery system.













Project Management services.

Managed the installation of a new
Yeast Propogation Plant at brewery
client. Full ground up project
management.



# MATRIX CUSTOMISED PRODUCTS

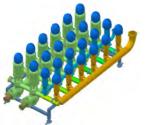


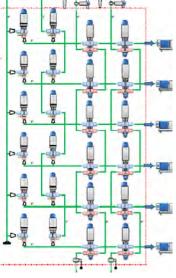
VALVE MANIFOLD DESIGN AND CONSTRUCT
DRUM UNLOADING SYSTEM
ELECTRIC ACTUATION
MOBILE FLOW METER / TROLLEY ASSEMBLY
CUSTOM PUMP BUILDS TO YOUR NEEDS





















# MATRIX CUSTOMISED PRODUCTS

**CUSTOM SOLUTIONS USING THE BEST OF THE BEST** 





VALVE MANIFOLD DESIGN AND CONSTRUCT
DRUM UNLOADING SYSTEM
ELECTRIC ACTUATION
MOBILE FLOW METER / TROLLEY ASSEMBLY
CUSTOM PUMP BUILDS TO YOUR NEEDS



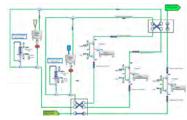


































**SMP-TO VALVES** 



**SMP-EC VALVES** 







**ALC SERIES PUMPS** 

PLUG COCK VALVES

**LKTN Top Unit** 

**THINKTOP** THINKTOP BASIC













**761 VALVES** 

**Mainstream filters** 

Tri-Clover C SERIES PUMPS

**371 VALVES** 







FPE 3522 **FPE 3532 FPE 3542 FPE 3552** 

Fristam FPE 742

Fristam FPE 712, 722

## **CREDIT APPLICATION**

Matrix Process Solutions Pty. Ltd. ABN: 28 097 144 897

**ACN:** 097 144 897



Trading Name	
ACN Number	ABN Number
PH Number	Fax Number
Email (Invoices)	
Email (Statements)	
POSTAL ADDRESS	
	POST CODE
DELIVERY ADDRESS	
	POST CODE
Names & Details of Partners, Sole Trader or Directors	
1	3.
2.	4
BANK	BRANCH
BSB #	ACCOUNT NUMBER
Trade References	
NAME PHONE	# FAX #
1.	
2.	
3.	
4.	
<ol> <li>I am aware that trading terms are STRICTLY NET THIRTY (30) DAYS and will underta</li> <li>To the best of my knowledge, all information provided is correct at the time of writin</li> <li>I/we accept the conditions of trade set down by Matrix Process Solutions Pty. Ltd.</li> <li>I/we understand that all products supplied by Matrix Process Solutions Pty. Ltd. remains</li> </ol>	
Signed	Position
Print Name	Date

## **TERMS OF SALE**

#### **TERMS OF PAYMENT**

Terms of payment are as specified in the quotation.

If terms of payment are not specifically stated to be otherwise, they are strictly net thirty (30) days following the month of invoice.

Deposits may be requested/required for projects, special builds or other nonstandard works, and will be otherwise detailed in the quotation, as either a percentage (%) of the total quotation price or a dollar value not more than 50% of the orders value, which is payable at the time of order placement.

Projects of significant value will require not only the payment of deposits before their commencement thereof, but shall also include progress payments based on the value of work completed when requested by Matrix Process Solutions.

Goods returned will be subject to a re-stocking fee.

Special builds are non-returnable.

#### **PRICES**

Prices are firm for thirty (30) days unless stated otherwise.

Prices do not include any Federal, State or Local Sales or GSTTax, which will apply to sales as required by law.

All prices are F.O.B. your local Matrix Process Solutions Sales office, unless stated otherwise.

Goods may be subject to currency fluctuations, and rights are reserved to amend quotations due to unforeseen fluctuations less than thirty (30) days from the date of the quotation

Typographical and stenographic errors are subject to correction without penalty.

#### DELIVERY

All shipping and delivery dates are tentative based on current equipment availability and factory loadings.

Transport costs will be charged on all deliveries unless the purchaser specifies their own choice of freight forward carrier.

All goods become the purchasers sole responsibility once loaded on any freight carrier ex a Matrix Process Solutions location.

Matrix Process Solutions is not responsible for damages or losses due to delays of any cause.

#### **CHANGES**

Notice and changes in orders must be made and confirmed in writing. Penalties may apply for special build materials and work in progress equipment.

#### **INSPECTION OF EQUIPMENT**

Upon arrival of the components and/or equipment at the purchasers facilities, or at any other place at which the purchaser has ordered the equipment delivered in accordance with the order, the purchaser shall immediately inspect the equipment and shall give written notice to Matrix Process Equipment within five days after arrival of the equipment of any claim that the equipment does not conform with the specifications or the terms of the order.

#### **RETURNS**

Orders accepted by the customer cannot be returned without prior written consent from an authorized individual of Matrix Process Solutions Pty Ltd.

All returns will be subject to a minimum 25% Restocking Charge.

Special builds are non-returnable and non-refundable.

Shipping charges on authorised returns are to be prepaid by the Customer unless otherwise specified, otherwise freight costs will be deducted from any credit amounts issued by Matrix Process Solutions to the customer.

## **CANCELLATIONS**

In the event this quotation results in an order which is cancelled or terminated by the customer, the customer agrees to pay to Matrix Process Solutions an amount in cash equal to 20% of the total price of the order or contract, plus the actual cost of labour, materials, overhead and related direct costs and expenses incurred by Matrix Process Solutions in connection with the order, it being impossible to ascertain or estimate the entire or exact cost, damage or injury which Matrix Process Solutions may sustain by reasons of cancellation, and such sum is agreed to as reasonable compensation and not as a penalty.

#### **LIMIT OF LIABILITY**

Matrix Process Solutions is not liable or responsible for any loss, damage, injury to person or property or any direct or consequential damage arising from sale, installation, or use of any components or equipment it supplies.

Matrix Process Solutions shall not be held liable for any losses or damages to the customer resulting from the improper operation, care or cleaning of any equipment it supplies.

Matrix Process Solutions is not liable for any damage to process or product due to failure of the any equipment, component or service work it supplies or conducts on behalf of the client.

#### TITLE

In the event the customer fails to pay as agreed in the purchase contract, Matrix Process Solutions shall have the right to immediate possession of the property and to enter upon

the premises where the property may be located and remove same, while also reserving the right to deduct costs associated with recovery, manufacture and shipping to and from the client, from any deposit or monies paid by the client.

Title of any and all goods supplied by Matrix Process Solutions does not pass to the customer until the agreed purchase contract price has been paid in full.

#### WARRANTY

Matrix Process Solutions Pty Ltd, warrants to the original purchaser that equipment of its many manufacturing principals including but not limited to Alfa Laval, ABB Motors, Keofitt, Murzan, LAUFER International (LIAG), Ampco Pumps, Pipetite, MCD, Gemu and SSP Pumps, is free from defects in material and workmanship for a period of one (1) year from date of shipment.

Matrix Process Solutions guarantees to repair or replace at its choice, F.O.B. a Matrix Location, any such equipment found to be defective, provided written notice of the alleged defect is received within one year from date of shipment.

Excluded from the foregoing guarantee are damages caused by ordinary wear and tear, erosion and corrosion, or by misuse, abuse or improper handling by the purchaser or any third party.

Matrix Process Solutions Pty Ltd makes no additional warranties, expresses or implied, whether of merchantability, fitness for purpose, or otherwise, other than that stated above

Matrix Process Solutions Pty Ltd, shall not be responsible for any indirect special or consequential damages, nor for any other claims arising out of the sale or use of its equipment, beyond the remedy as stated above.

Equipment, parts or accessories manufactured by any of Matrix Process Solutions Manufacturing Principals carry the guarantee of the manufacturer only. Any warranties or claims which differ from the foregoing are unauthorized by Matrix Process Solutions Pty Ltd and become the warranty safety of the party making them, unless specifically authorized in writing by an officer of Matrix Process Solutions Pty Ltd. Should any provision of the foregoing be held ineffective, the remaining provisions shall continue in full force and effect.

#### **EXCLUSIONS, EXTRAS AND OPTIONS**

Installation, rigging, mounting, erection, electrical and pneumatic installation, and start up commissioning are not included unless specifically stated otherwise in the quotation. Site restrictions which contribute toward additional service hours, requirements for site inductions, crainage and additional cartage on site, spare parts not specified in the quotation but required to return units to operational duty during serving, along with any other unspecified parts, delay, components or services requested by the client on site, will be charged as extras to the clients account, and commencement of any site work by Matrix Process Solutions Pty Ltd will constitute acceptance by the client of the terms as specified above.

Supervisory assistance is available at extra cost for installation, erection, or start up commissioning at current Matrix Process Solution rates, plus all travel and living expenses, unless stated otherwise in the quotation.

#### **RISK OF LOSS**

Matrix Process Solutions Pty Ltd shall not be liable for damages arising from its failure to make or delay in making delivery because of fire, flood, strikes, riots, embargoes on freight of any government, accidents, insurrections, lockouts, breakdown of machinery, loss or damage of goods in transit, Acts of God, or any other circumstances or unavoidable cause beyond the control of Matrix Process Solutions Pty Ltd. In no case shall Matrix Process Solutions be responsible for any liability, loss or damage after delivery of the equipment in good order and condition to the carrier or carriers at any point of shipment.

In no case shall Matrix Process Solutions be responsible for any loss of production, loss of profits or loss of product arising from any process design or installation it undertakes, unless specifically agreed to in a process, construction and contract brief signed by all parties prior to such work being undertaken.

#### GENERAL

These terms and conditions of sale cannot be supplemented or altered by any language contained in any purchase order or other customer's document unless accepted in writing by Matrix Process Solutions Pty ltd.

The sale shall be governed by, constructed and interpreted in accordance with, the laws of the State of Queensland, Australia, and the buyer hereby submits to the non-exclusive jurisdiction of the courts of Queensland, and waives any objection due to the lack of jurisdiction thereof.

#### **INTELLECTUAL PROPERTY**

Goods offered for sale by Matrix Process Solutions may be subject of patents, registered designs, trademarks, copyright or other proprietary and legal protection, and shall not be copied or reproduced in part or whole by the purchaser for whatever reason. All programs, operating systems, drawings, designs, calculations and any other proprietary information used during the construction, design, concept planning, process trials or any other activity relating to the business of Matrix Process Solutions Pty Ltd, and the purchaser warrants that they shall not attempt to copy, alter, reproduce, extend, adjust or otherwise interfere with such programs or operating systems, without the payment of a licence fee to Matrix Process Solutions Pty Ltd.







































