



Type LW_(-SR)



Standard Swivel Joints



with **Welding Connection**

with Threaded Connection

for Loading Arms

for Food and Pharmaceuticals

Know how & consulting directly from manufacturer with decades of experience

That's why you choose... The logo for IGATEC International features the word 'IGATEC' in a large, bold, grey sans-serif font. Above the 'TEC' part, the word 'International' is written in a smaller, blue sans-serif font. A horizontal blue line runs through the middle of the 'IGATEC' text.

- **Radial gaskets**
Allow a maximum of feasible sealing materials and longer lifetime compared to axial gaskets
- **DUPLEX, SUPERDUPLEX, HASTELLOY, ALUMINIUM...**
We machine all compatible materials
- **ASME, NACE, NORSOK, DIN...**
We manufacture according to all required guidelines and directives
- **Customized connections**
- **IGATEC Swivel Joints**
Made of carbon steel (e.g. St52-3, ...) are nitrided to reach maximized hardness of surface and optimized corrosion protection at the same time
- **Certifications**
TA-Luft
VdS
ISO 9001:2008

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Swivel Joint Type LW

Dimensions:

Nominal diameter	DN25 / 1" up to DN700 / 28" [up to DN1000 / 40" on request]
Working pressure P _{max}	100 bar / 1.450 psi *
Working temp. T _{min/max}	-55°C up to 250°C / -67°F up to 482°F *
Material	St52-3, 1.4571 [other materials on request e.g. Aluminium, Hastelloy, etc.]
Gasket material	NBR, Viton, PTFE, HPU
Ball material	Stainless steel
Connection	Flange (ANSI/DIN/special), welding, threaded (female/male, NPT, BSP, etc.)
Style	10, 11, 12, 20, 21, 22, 30, 31
Application	Universal

* P_{max} and T_{max} may not occur at the same time

Technical Features:

Design	Standard
No. of ball races	1
Fluid	Diesel, Ethanol, LPG,...
Type of sealing	Radial
External dust seal	Yes
Secondary seal	No
Body	Two-parts
Connection for leakage control	On request
Without grease nipple	On request (e.g. floating suction systems)
Maximum speed	Depends on gasket material

Further Advantages:

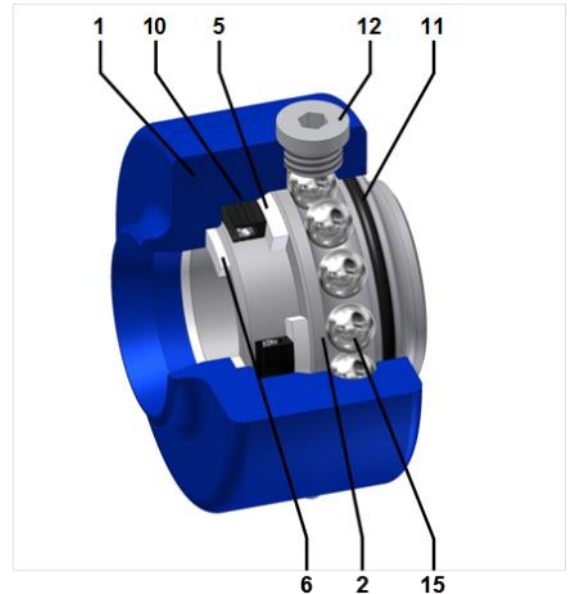
	Perfect concentric run-out, easy handling
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Additional Function (on request):

Execution: smooth-running(-SR)	<ul style="list-style-type: none"> • Special gasket • Refined surfaces • Fluid dynamical pressure release
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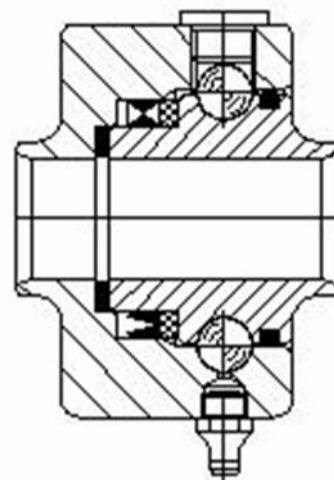
Certifications:

	TA-Luft
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Pos. Description

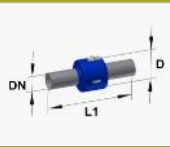



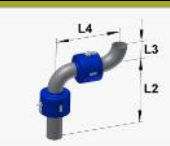


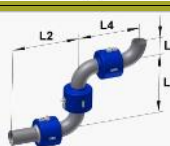
Pos.	Description
1	Outer part
2	Inner part
5	Back up ring
6	Internal wiper
10	Gasket
11	Dust Seal
12	Plug
15	Ball
16	Grease nipple



Type LW

with Welding Connection


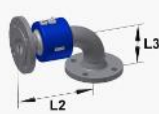






90° elbow according to DIN 2605-2-90°-3S

		DN	25	32	40	50	65	80	100	125	150	200	250	300
L1 [mm]			275 ±3	275 ±3	275 ±3	285 ±3	285 ±3	287 ±3	287 ±4	296 ±4	296 ±4	354 ±4	314 ±6	314 ±6
L2 [mm]			213 ±4	222.5 ±4	232 ±4.5	261 ±4.5	380 ±4.5	301 ±4.5	339 ±5	386.5 ±6	424.5 ±5	559 ±6	593 ±8	671 ±8
L3 [mm]			38 ±2.5	47.5 ±2.5	57 ±3	76 ±3	95 ±3	114 ±3	152 ±3	190.5 ±4	228.5 ±3	305 ±4	381 ±5	457 ±5
L4 [mm]			151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	553 ±6	764 ±8	876 ±10	1.028 ±10
Ø / D [mm]			87	97	97	117	132	152	172	203	233	313	368	403
Weight [kg]	Style 10		2.7	3.0	3.1	5.2	6.3	8.6	9.8	14.6	17.4	39.3	48.9	56.4
	Style 11		2.6	2.9	3.1	5.2	6.5	9.2	11.3	17.5	22.4	52.6	71.0	93.0
	Style 12		2.5	2.9	3.0	5.3	6.8	9.8	12.8	20.4	27.5	65.9	93.1	129.7
	Style 20		5.1	5.7	5.8	10.0	12.2	17.1	20.0	30.7	37.9	88.3	115.4	143.5
	Style 21		5.0	5.6	5.8	10.1	12.5	17.7	21.5	33.6	42.9	101.6	137.6	180.2
	Style 22		4.9	5.5	5.8	10.1	12.8	18.3	23.0	36.4	47.9	114.9	159.7	216.8
	Style 30		7.4	8.3	8.6	14.8	18.2	25.6	30.3	46.8	58.3	137.3	182.0	230.6
	Style 31		7.3	8.3	8.5	14.9	18.5	26.2	31.7	49.6	63.4	150.6	204.1	267.3

Type LW

with Flanged Connection (LWF)


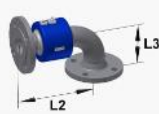






90° elbow according to DIN 2605-2-90°-3S / welding flange DIN EN 1092-1, Type 11

		DN	25	32	40	50	65	80	100	125	150	200	200	250	250	300	300
		PN	10 16	10 16	10 16	10 16	10 16	10 16	10 16	10 16	10 16	10 16	16	10 16	16	10	16
		L1 [mm]	151 ±3	155 ±3	159 ±3	175 ±3	175 ±3	187 ±3	191 ±4	206 ±4	206 ±4	238 ±4	238 ±4	250 ±6	254 ±6	250 ±6	270 ±6
		L2 [mm]	151 ±4	162.5 ±4	174 ±4.5	206 ±4.5	225 ±4.5	251 ±4.5	291 ±5	341.5 ±6	379.5 ±5	481 ±6	481 ±6	563 ±8	565 ±8	639 ±8	649 ±8
		L3 [mm]	78 ±4	89.5 ±4	101 ±4.5	123 ±4.5	142 ±4.5	166 ±4.5	206 ±5	247.5 ±6	286 ±5	369 ±6	369 ±6	451 ±8	453 ±8	527 ±8	537 ±8
		L4 [mm]	151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	553 ±6	724 ±8	724 ±8	876 ±10	876 ±10	1.028 ±10	1.028 ±10
		Ø / D [mm]	115	140	150	165	185	200	220	250	285	340	340	368	368	403	403
Weight [kg]	Style 10		4.7	6.1	6.4	9.7	11.7	15.1	17.6	25.3	30.1	56.3	55.6	77.4	79.4	87.7	97.5
	Style 11		4.8	6.3	6.7	10.2	12.5	16.4	20.1	29.5	37.1	73.2	72.6	104.0	105.9	130.3	140.1
	Style 12		4.9	6.5	7.0	10.7	13.4	17.7	22.6	33.8	44.0	90.1	89.5	130.5	132.4	172.9	182.7
	Style 20		7.1	8.7	9.2	14.5	17.7	23.6	27.8	41.3	50.5	105.3	104.7	144.0	145.9	174.8	184.6
	Style 21		7.2	9.0	9.5	15.0	18.5	24.9	30.4	45.6	57.5	122.2	121.6	170.5	172.4	217.4	227.2
	Style 22		7.3	9.2	9.7	15.6	19.3	26.2	32.9	49.9	64.5	139.1	138.5	197.1	199.0	260.0	269.8
	Style 30		9.4	11.4	11.9	19.3	23.6	32.0	38.1	57.4	71.0	154.3	153.7	210.5	212.5	261.9	271.7
	Style 31		9.6	11.6	12.2	19.8	24.5	33.3	40.6	61.7	78	171.2	170.6	237.1	239.0	304.5	314.3

Type LW

with Flanged Connection (LWF)

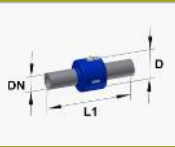



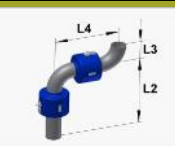



90° elbow according to DIN 2605-2-90°-3S / welding flange DIN EN 1092-1, Type 11

		DN	25	32	40	50	65	80	100	125	150	200	200	250	250	300	300
		PN	25 40	25 40	25 40	25 40	25 40	25 40	25 40	25 40	25 40	25 40	40	25 40	40	25 40	40
		L1 [mm]	155 ±3	159 ±3	165 ±3	181 ±3	189 ±3	203 ±3	217 ±4	232 ±4	246 ±4	274 ±4	290 ±4	290 ±6	324 ±6	298 ±6	344 ±6
		L2 [mm]	153 ±4	164.5 ±4	177 ±4.5	209 ±4.5	232 ±4.5	259 ±4.5	304 ±5	354.5 ±6	399.5 ±5	499 ±6	507 ±6	583 ±8	600 ±8	663 ±8	686 ±8
		L3 [mm]	80 ±4	91.5 ±4	104 ±4.5	126 ±4.5	149 ±4.5	174 ±4.5	219 ±5	260.5 ±6	305.5 ±5	387 ±6	395 ±6	471 ±8	488 ±8	551 ±8	574 ±8
		L4 [mm]	151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	553 ±6	724 ±8	724 ±8	876 ±10	876 ±10	1.028 ±10	1.028 ±10
		Ø / D [mm]	115	140	150	165	185	200	235	270	300	360	375	368	368	403	403
Weight [kg]	Style 10		5.0	6.5	7.5	10.3	13.1	17.3	21.7	31.2	38.7	68.5	78.1	98.2	120.7	117.2	156.8
	Style 11		5.1	6.7	7.7	10.8	14.0	18.6	24.2	33.7	45.7	85.4	95.0	124.7	147.2	159.8	199.4
	Style 12		5.3	6.9	8.0	11.4	14.8	20.0	26.7	36.2	52.7	102.3	117.9	151.3	173.7	202.4	242.0
	Style 20		7.4	9.2	10.2	15.1	19.1	25.8	31.9	45.5	59.2	117.5	127.1	164.7	187.2	204.3	243.9
	Style 21		7.5	9.4	10.5	15.6	20.0	27.1	34.4	48.0	66.2	134.4	144.0	191.3	213.8	246.9	286.5
	Style 22		7.6	9.6	10.7	16.2	20.8	28.4	36.9	50.5	73.2	151.3	160.9	217.8	240.3	289.5	329.1
	Style 30		9.8	11.8	12.9	19.9	25.1	34.3	42.1	59.8	79.7	166.5	176.1	231.3	253.8	291.4	331.0
	Style 31		9.9	12.0	13.2	20.5	25.9	35.6	44.6	62.3	86.7	183.4	193.0	257.8	280.3	334.0	373.6

Type LW

with Female Thread (LWS)

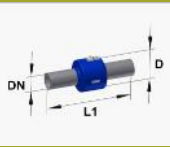



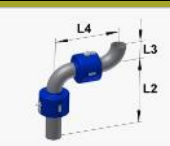


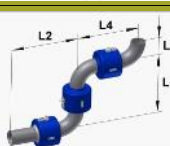
90° elbow according to DIN 2605-2-90°-3S / socket according to DIN 2986

		DN	25	32	40	50	65	80	100	125	150
L1 [mm]			161 ±3	171 ±3	171 ±3	197 ±3	215 ±3	229 ±3	253 ±4	280 ±4	280 ±4
L2 [mm]			156 ±4	170.5 ±4	180 ±4.5	217 ±4.5	245 ±4.5	272 ±4.5	322 ±5	378.5 ±6	416.5 ±5
L3 [mm]			83 ±4	97.5 ±4	107 ±4.5	134 ±4.5	162 ±4.5	187 ±4.5	237 ±5	284.5 ±6	322.5 ±5
L4 [mm]			151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	533 ±6
Ø / D [mm]			87	97	97	117	132	152	172	203	233
Weight [kg]	Style 10		2.4	2.7	2.8	4.7	5.8	8.2	9.7	14.4	19.4
	Style 11		2.6	2.9	3.1	5.2	6.6	9.5	12.2	18.7	26.3
	Style 12		2.7	3.1	3.3	5.8	7.5	10.8	14.7	23.0	33.3
	Style 20		4.8	5.4	5.5	9.5	11.8	16.6	19.9	30.4	39.8
	Style 21		4.9	5.6	5.8	10.0	12.6	17.9	22.4	34.7	46.8
	Style 22		5.1	5.8	6.1	10.6	13.4	19.2	24.9	39.0	53.8
	Style 30		7.2	8.1	8.3	14.3	17.7	25.1	30.1	46.5	60.3
	Style 31		7.3	8.3	8.5	14.8	18.6	26.4	32.6	50.8	67.3

Type LW

with Male Thread (LWN)

90° elbow according to DIN 2605-2-90°-3S / socket according to DIN 2982

		DN	25	32	40	50	65	80	100	125	150
L1 [mm]			155 ±3	175 ±3	175 ±3	185 ±3	205 ±3	227 ±3	247 ±4	276 ±4	336 ±4
L2 [mm]			153 ±4	172.5 ±4	182 ±4.5	211 ±4.5	240 ±4.5	271 ±4.5	319 ±5	376.5 ±6	444.5 ±5
L3 [mm]			80 ±4	99.5 ±4	109 ±4.5	128 ±4.5	157 ±4.5	186 ±4.5	234 ±5	282.5 ±6	350.5 ±5
L4 [mm]			151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	553 ±6
Ø / D [mm]			87	97	97	117	132	152	172	203	233
Weight [kg]	Style 10		2.6	2.9	3.0	4.9	6.3	8.5	10.2	16.7	21.8
	Style 11		2.7	3.1	3.3	5.5	7.1	9.8	12.8	20.9	28.8
	Style 12		2.8	3.3	3.5	6.0	7.9	11.1	15.3	25.2	35.8
	Style 20		4.9	5.5	5.7	9.8	12.2	17.0	20.5	32.7	42.3
	Style 21		5.1	5.7	6.0	10.3	13.1	18.3	23.0	37.0	49.2
	Style 22		5.2	5.9	6.3	10.8	13.9	19.6	25.5	41.3	56.2
	Style 30		7.3	8.2	8.5	14.6	18.2	25.4	30.7	48.8	62.7
	Style 31		7.4	8.4	8.7	15.1	19.1	26.7	33.2	53.1	69.7

Type LW

with Customized Connections

90° elbow according to DIN 2605-2-90°-3S

This datasheet allows easy determination of dimensions of Type LW Swivel Joints with user-defined end connections. Important basic dimensions are specified.



		DN	25	32	40	50	65	80	100	125	150	200
L1 [mm]			71	71	71	81	81	83	83	92	92	110
L2 [mm]			111 ±4	121.5 ±4	130 ±4.5	159 ±4.5	178 ±4.5	199 ±4.5	237 ±5	284.5 ±6	322.5 ±5	417 ±6
L3 [mm]			38 ±2.5	47.5 ±2.5	57 ±3	76 ±3	95 ±3	114 ±3	152 ±3	190.5 ±4	228.5 ±3	305 ±4
L4 [mm]			151 ±5	170 ±5	189 ±6	237 ±6	275 ±6	315 ±6	391 ±6	477 ±8	553 ±6	724 ±8
Ø / D [mm]			87	97	97	117	132	152	172	203	233	313
Weight [kg]	Style 10		2.1	2.3	2.3	4.0	4.8	6.7	7.2	11.0	12.6	30.0
	Style 11		2.4	2.7	2.7	4.8	6.0	8.5	10.2	16.1	20.5	49.0
	Style 12		2.5	2.9	3.0	5.3	6.8	9.8	12.8	20.4	27.5	65.9
	Style 20		4.6	5.1	5.2	9.1	11.1	15.6	17.9	27.8	34.0	81.1
	Style 21		4.8	5.3	5.5	9.6	11.9	17.0	20.5	32.1	40.9	98.0
	Style 22		4.9	5.5	5.8	10.1	12.8	18.3	23.0	36.4	47.9	114.9
	Style 30		7.0	7.8	7.9	13.9	17.1	24.1	28.2	43.9	54.4	130.1
	Style 31		7.1	8.0	8.2	14.4	17.9	25.4	30.7	48.2	61.4	147.0

Type LW

with Customized Connections

90° elbow according to DIN 2605-2-90°-2S

This datasheet allows easy determination of dimensions of Type LW Swivel Joints with user-defined end connections. Important basic dimensions are specified.



		DN	25	32	40	50	65	80	100	125	150	200
L1 [mm]			71	71	71	81	81	83	83	92	92	110
L2 [mm]			98 ±4	105 ±4	111 ±4.5	134 ±4.5	146 ±4.5	161 ±4.5	187 ±5	221 ±6	246 ±5	315 ±6
L3 [mm]			25 ±2.5	32 ±2.5	38 ±3	51 ±3	63 ±3	76 ±3	102 ±3	127 ±4	152 ±3	203 ±4
L4 [mm]			125 ±5	139 ±5	151 ±6	187 ±6	211 ±6	239 ±6	291 ±6	350 ±8	400 ±6	520 ±8
Ø / D [mm]			87	97	97	117	132	152	172	203	233	313
Weight [kg]	Style 10		2.1	2.3	2.3	4.0	4.8	6.7	7.2	11.0	12.6	30.0
	Style 11		2.4	2.6	2.7	4.7	5.8	8.1	9.4	14.8	18.2	43.8
	Style 12		2.5	2.8	2.9	5.1	6.4	9.1	11.2	17.7	23.0	55.4
	Style 20		4.6	5.1	5.1	9.0	11.0	15.3	17.1	26.5	31.7	75.9
	Style 21		4.7	5.2	5.4	9.3	11.5	16.2	18.9	29.5	36.5	87.5
	Style 22		4.8	5.4	5.6	9.7	12.1	17.2	20.6	32.5	41.2	99.2
	Style 30		7.0	7.7	7.8	13.6	16.7	23.4	26.6	41.3	49.9	119.6
	Style 31		7.1	7.9	8.0	14.0	17.3	24.3	28.3	44.3	54.7	131.3

Ordering System:

Type	Connections right / left	Style	Nominal diameter	Material	Working pressure	Miscellaneous	Smooth Running Design
W	___ = Welding	10	1" up to 28"	St52-3	up to 1.450 psi	DIN	SR1*
LW	F = Flange	11	(up to 40" on request)	1.4571		ANSI	SR2**
T	S = Female thread (Bush)	12		42CrMo4		SAE	
LT				Duplex		...	
V	N = Male thread (Nipple)	20		Hastelloy	(for applications with higher pressure we offer special swivel joints)		
LA		21		Superduplex			
LCF		22					
HCR				(other materials on request)			
F		30					
LF		31					
FP							
LFP							
LW							

*SR1 = Special gasket with surface finishing
 **SR2 = Standard gasket with surface finishing

Additional Information:

Media / fluid (gasoline, sulfuric acid, milk, LPG...):
 Working temperature:
 Working space situation (dimensions, temperature of environment, etc...):
 Type of movement (swiveling / angle?, rotation / rpm?...):
 Side load:
 Miscellaneous requirements: