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## LIQUIP SWIVEL JOINT, Ø100mm WELD ENDS

### DATA SHEET

**PART N°: SJW100MMVZ**  
**SJW100MMTZ**

- TITLE:** Swivel joint for fabrication of loading arms.
- PURPOSE:** Fabricated from steel with pre-prepared ends for welding directly to steel pipe or tube. More economical when manufacturing loading arms or other machinery requiring swivelling joints.
- OPERATION:** Our swivel incorporates the well-known high load, low wear Liquip principle of ball with needle bearing combination, used in Liquip's extensive range of loading arms like the "Velvet Touch 2" loading arm. Sealing is enhanced by the purpose designed, Teflon, or viton primary face seal, and two viton o-rings which isolate the bearing pack from product leaks. If the primary seal did leak it would be contained by the o-ring, before the product could wash the grease from the bearings causing them to fail in operation. The leak is also immediately visible from a tell-tale hole (initially supplied with screw fitted to allow swivel to bed in, during which time some leaking is possible but normal). The greasing system also includes the Liquip trade-mark of a pressure relief outlet to ensure correct lubrication, by ejecting old grease and particles that can cause wear.
- PERIODIC SERVICE:** Regrease at maximum six-month intervals dependent on service. Contact Liquip for grease recommendation.
- VARIANTS:** Seal variants as per drawing overleaf.

Note:

The nature of Teflon is that it is unyielding but easily scratched, therefore the slightest damage can lead to weeps particularly where clamping force is provided by a spring which is necessarily limited in force. However the use of Teflon cannot be avoided because of its outstanding chemical resistance. Liquip guarantee the sealing of all new products and test all production prior to dispatch. Following installation of the equipment by the Purchaser it is essential that the valve be kept perfectly clean, any test liquids be perfectly clean and no tools be allowed to touch the Teflon seals. It is not uncommon for valves to exhibit small weeps once in service with commercial-quality liquids.

### TECHNICAL

**DATA:** Working pressure 1,100 kPa, test 1,650 kPa.  
100mm diameter bore throughout.  
Weight 5.5kg.  
Strip swivel prior to welding. Instructions available for welding to pipes.

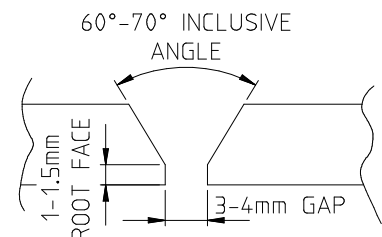
**MOUNTING:** If vertical, mount with female half above male half for water and dirt run-off.

**MATERIALS:** Steel bodies with hardened running faces.  
Bearing quality balls and needles.  
Viton seals as standard.

### WELD

**INSTRUCTIONS:**

- 1) Preheat to 100°C.
- 2) Root run LW1 wire 2.4mm GTAW
- 3) Cap run Ferrocraft 61 3.2 MMAW



*Overall dimensions shown on the dwg overleaf.*

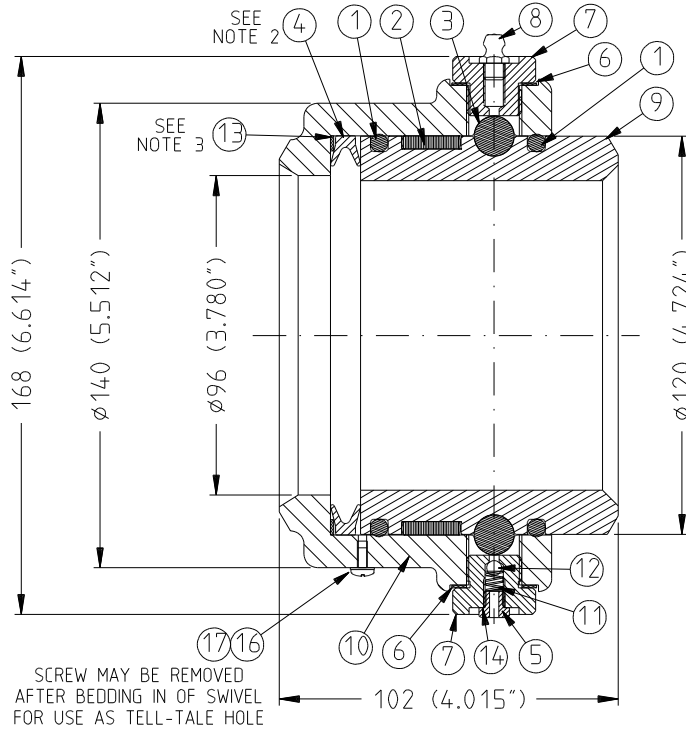


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LIQUIP

## SJW100 SERIES WELDABLE SWIVELS Ø100mm



PART NUMBER	DESCRIPTION
SJW100MMx	SEAL MATERIAL
	V = VITON GFLT
	T = TEFLON COMPOSITE
	FEMALE COMPONENT MATERIAL
	M = STEEL (NITRIDED)
	MALE COMPONENT MATERIAL
	M = STEEL (NITRIDED)

SCREW MAY BE REMOVED AFTER BEDDING IN OF SWIVEL FOR USE AS TELL-TALE HOLE

ITEM	PART NO	DESCRIPTION	QUANTITY		MATERIAL	GRADE
			VITON SEALED	TEFLON SEALED		
1	0126	O-RING	2	2	VITON	B70
2	4531	ROLLER Ø4	90	90	STEEL	
3	2334	BALL Ø12mm	30	30	STEEL	
* NOTE 2	4	4617 LIP SEAL - SPRING LOADED	-	1	PTFE	
		4578VG LIP SEAL	1	-	VITON	GFLT
5	6688	BALL RETAINING SCREW	1	1	BRASS	385
6	0885	FIBRE WASHER	2	2	FIBRE	
7	SJW100-3	BALL RETAINER PLUG	2	2	BRASS	385
8	0481	GREASE NIPPLE	1	1	BRASS	
9	SJW100M-2	MALE SWIVEL	1	1	STEEL	20MnV6
10	SJW100M-1	FEMALE SWIVEL	1	1	STEEL	20MnV6
11	4480	GREASE SPRING	1	1	ST STEEL	303
* NOTE 3	12	4580 BALL BEARING Ø4.7	1	1	STEEL	
	13	5699 WEAR RING	1	-	PTFE	
	14	7102 LOCTITE 7400	1	1	VARNASTOP	
	15	6305 INSTRUCTION LEAFLET	1	1	PAPER	
	16	4926 SCREW PAN/HD PH/HD	1	1	Z/P STEEL	
	17	5263 WASHER FIBRE	1	1	FIBRE	

**NOTES:**

- 1) ANY COMPONENT COMBINATION CAN BE MADE AT SPECIAL REQUESTS, LISTED ABOVE.
- 2) 4617 IS USED IN TEFLON SEALED ASSEMBLIES (T) & 4578VG IS USED IN ELASTOMER SEALED ASSEMBLIES.
- 3) 5699 TEFLON WEAR RING IS NOT USED IN TEFLON SEALED ASSEMBLIES (T), ONLY VITON. FIT WEAR RING TO FEMALE SIDE OF SEAL.
- 4) SOME PRODUCTS MAY REQUIRE SPECIAL SEAL MATERIAL AND GREASE - CONSULT ENGINEERING IF UNSURE.

X1100496

Issue: N

METERS - VALVES - VENTS - MANHOLES - PUMPS - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS



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