

VNI-A4VG Intermediate Swivel for Loading Arm

180° swivel for use on outboard end of loading arm, located at the top of the drop hose/spool.

OPERATION

A single-plane swivel mounted so that the loading coupler swings in & out relative to the tanker API adaptor.

Key Features

- The swivel bolts on the outboard end of the horizontal spool, above the drop hose/spool.
- This provides a swing action to enhance the movement of the loading coupler to better than that of hose deflection only.



Dismantle

Remove retainer plug and rotate the swivel with the hole pointing downwards until all ball-bearings have dropped out. The male of the swivel can then be removed complete with the needle bearings and seals.

Adjustment

- None.
- Grease at three-monthly intervals with recommended grease.
- See Installation and Maintenance Manual for full details.

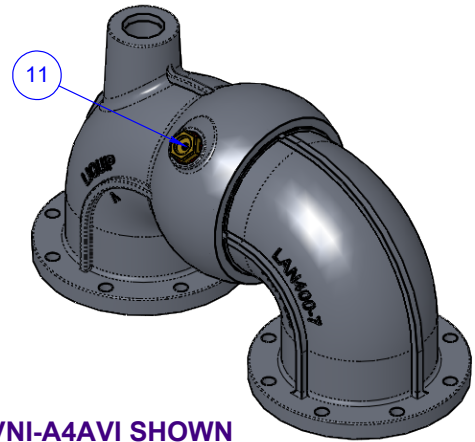
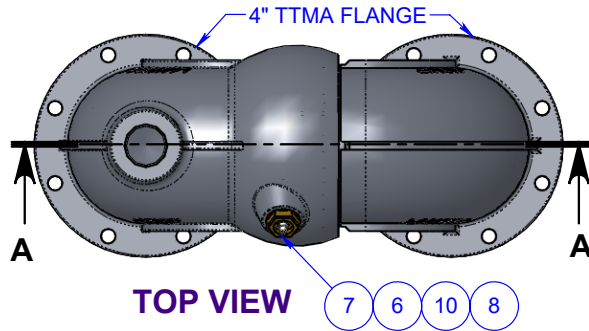
Specifications

Mounting	Flanges are 100mm (4") TTMA pattern.
Technical Data	<ul style="list-style-type: none"> • All aluminium construction (heat treated). • Ball and needle rolling elements for optimum axial and radial load bearing with minimum friction. • Grease nipple one side with relief valve mounted opposite for efficient removal of old grease and debris. • Dual o-rings for product seal and dust seal respectively. • Viton B70 grade o-rings (* Teflon or other special seals available on request). • Brass ball retainer.
Design pressure	1,000 kPa (145 PSI)
Test pressure	1,500 kPa (218 PSI)
Weight	5.6 kg (12.3lb)
Operating temperature	-20° to +80°C (-4° to +176°F) for EPDM & Viton B70 grade -40° to +60°C (-40° to +140°F) for Viton GFLT grade
Associated Equipment	See Velvet Touch loading arm systems.

* Note:

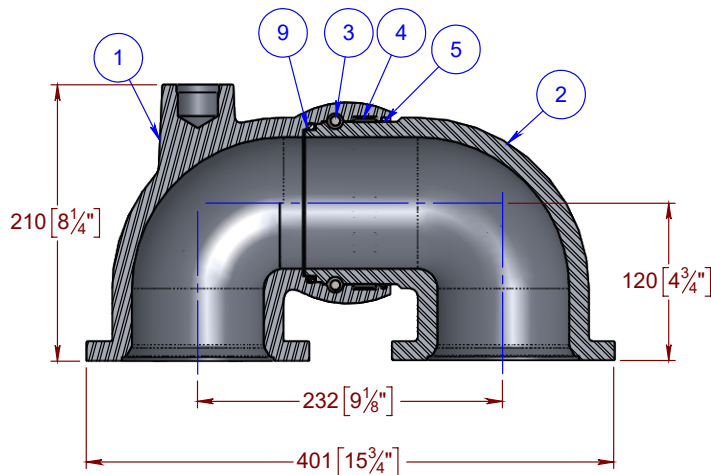
The nature of Teflon is that it is unyielding but easily scratched; therefore the slightest damage can lead to weeps particularly where clamping force is provided by a spring which is necessarily limited in force. However the use of Teflon cannot be avoided because of its outstanding chemical resistance. 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.

VNI-A4x INTERMEDIATE SWIVEL

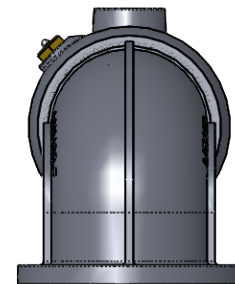


VNI-A4AVI SHOWN

AVIATION SPECIFIC SWIVELS (WITH AVI SUFFIX) USE GREASE SPECIFICALLY FOR AVIATION APPLICATIONS AND HAVE THE GREASE NIPPLE REPLACED WITH A ST STEEL GRUBSCREW TO AVOID STANDARD GREASE BEING INJECTED DURING REGULAR MAINTENANCE



SECTION A-A



END VIEW

ITEM	PART No.	DESCRIPTION	VNI-A4VG	VNI-A4AVI	MATERIAL
1	LAN400-6	ELBOW FEMALE TO 100mm TTMA	1	1	ALUMINIUM
2	LAN400-7	ELBOW MALE TO 100mm TTMA	1	1	ALUMINIUM
3	2334	BALL BEARING	32	32	STEEL
4	4531	NEEDLE ROLLER	100	100	STEEL
5	6080	O-RING	1	1	VITON B70
6	0885	WASHER FIBRE	1	1	FIBRE
7	LAN400-9	PLUG	1	1	BRASS
8	1525	NIPPLE GREASE RELIEF	1	1	Z/P STEEL
9	0126VG	O-RING	1	1	VITON GFLT
10	0481	NIPPLE GREASE STRAIGHT	1	-	Z/P STEEL
11	6696	GRUBSCREW CUP POINT	-	1	ST STEEL
12	7172	GREASE MOLYKOTE	1	-	GREASE
	7815	GREASE MOLYKOTE (AVIATION)	-	1	GREASE