

POPPET TYPE VALVE

Series VAN213

Installation, maintenance and
operating instructions

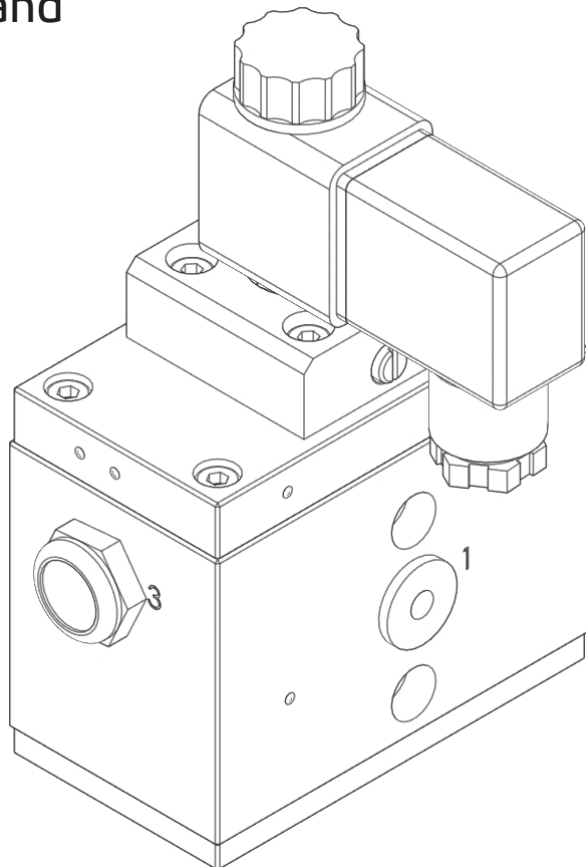


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READ THESE INSTRUCTIONS FIRST!

These instructions provide information about safe handling and operation of the valve.

If you require additional assistance, please contact the manufacturer or manufacturer's representative.

SAVE THESE INSTRUCTIONS!

Addresses and phone numbers are printed on the back cover.

1. INTRODUCTION

Thank you for choosing Valmet product. Each product is fully inspected after the production to offer you the highest quality. In order to fully utilize the product, we strongly recommend users to read this manual carefully and understood.

This manual provides information on installation; operation and maintenance procedures and related instructions for the Valmet brand VAN213 POPPET TYPE VALVE.

The aim of this literature is to support the use of products in correct manner, and all the technical information provided in the catalogue.

The manual should be given to the end user.

The manual can be changed or revised without any prior notice.

Any changes in product's specification, structure, and/or any components may not result immediate revised version of the manual.

The manual should not be duplicated or reproduced for any purpose without any consent of Valmet Flow Control Manufacturers & Engineers Private Limited, INDIA.

MANUFACTURER WARRANTY

For the safety, it is vital to follow instructions in the manual. It is not Valmet liability for any damages which caused by users' negligence.

It is not Valmet liability for any damages or accidents which resulted by any alteration or modification of the product and parts. If alteration or modification is necessary, please contact the Valmet directly.

Valmet warrants the product from the date of original retail purchase of the product for one (1) year, except as otherwise stated.

Valmet warranty will not cover the products that the product have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; damages that occurs in shipment, failure due to power surge, and cosmetic damage. Improper or incorrectly performed maintenance or report voids this Limited Warranty.

For detailed warranty information, please contact:
VALMET MANUFACTURERS & ENGINEERS PRIVATE LIMITED,
Manapada road, Dombivli (e), Maharashtra, India, Pin - 421204

1.1 DEFINITIONS

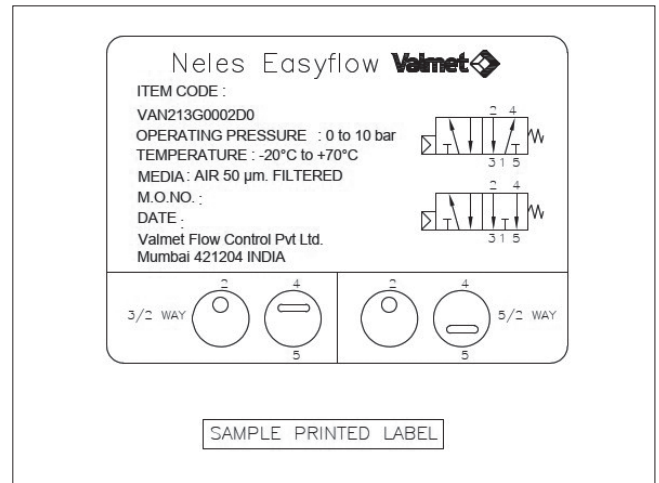
WARNING:

IF NOT OBSERVED, USER INCURS A HIGH RISK OF SEVERE DAMAGE TO PRODUCT AND/OR FATAL INJURY TO PERSONNEL.

CAUTION: If not observed, user may incur damage to product and/or injury to personnel.

NOTE: Advisory and information comments provided to assist maintenance personnel to carry out maintenance procedures.

2. LABEL DESCRIPTION



Label of VAN213G0002D0 defines the precise feature. This description is written below the company logo and is as follows.

Model No.: VAN: 3/2- 5/2 Way Namur Convertible Poppet Type SOV
2: 1/4" Size
13: Single Coil
G: BSP
0: Aluminum
0: NBR
02D0: 24 VDC Coil
Operating Pressure: 2.5 to 10 Bar
Temperature: -10°C to 50°C
S.O. No.: Sales order number
Date: Manufacturing Date
Dombivli – 421204 INDIA

3. INSTALLATION PROCEDURE

3.1 INSTALLATION PROCEDURE OF POPPET TYPE VALVE

CAUTION: Blow out air lines and fittings before installation. Use dry and oil free air. Do not dismantle the VAN 213 Series while operation is in line. Do not allow dirty air or fluids to get into the VAN 213 Series. Use filter unit (filter size 40µm, 3°C) for dust and moisture removal.

NOTE: Ensure the installation meets the legal and regulatory requirements of the country and state of use. The VAN 213 Series assembly should be left in the original packing until it is required for the use.

1. Hemp filaments, jute or even Teflon ribbons are normally not required, As the part connections are accurately threaded. By chance, if any of these or any other tightening medium get into the operational area inside the VAN 213 Series, possible damage of the VAN 213 could not be ruled out.
2. Clean all pipes and tube fittings thoroughly with suitable means. As even when brand new pipes are fitted, unclean interior is quite covered with dirt and dust.
3. Avoid impact on the VAN 213 Series. These may happen during transportation/ erection/ mishandling.

4. TECHNICAL SPECIFICATION

Model	VAN213
Operation type	Internal Pilot operated
Type	5/2 & 3/2 way convertible namur solenoid valve
Port	1/4" BSP/ 1/4" NPT
Operating Pressure	2.5 to 10 kg/cm ²

5. MAINTENANCE

NOTE: The VAN 213 Series must be removed from installation prior to maintenance. All the connections/ports must be disconnected prior to disassembly. All the mountings, accessories and spare parts used or replaced must be original from Valmet.

Valmet recommends "NELES M 55" grease for greasing. Apply the grease with soft brush or similar. In case of any difficulty consult Valmet distributor.

1. Install, operate and maintain as per the instructions and recommendations of this manual.
2. Any deviation from the above will cease the responsibilities of Valmet.

6. DISASSEMBLY

WARNING:

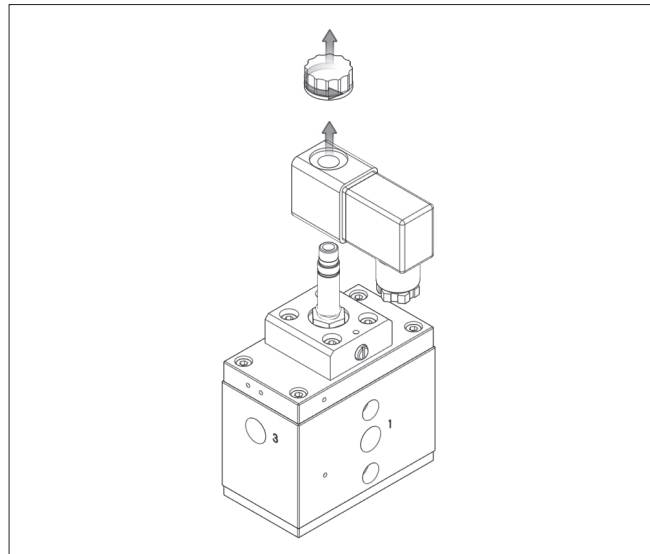
ALL ELECTRIC AND PNEUMATIC CONNECTIONS SHOULD BE REMOVED BEFORE STARTING DISASSEMBLY.

CAUTION: Do not place dismantled part on any diary/work bench but keep it on clean paper/cloth in same sequence as you have dismantled it.

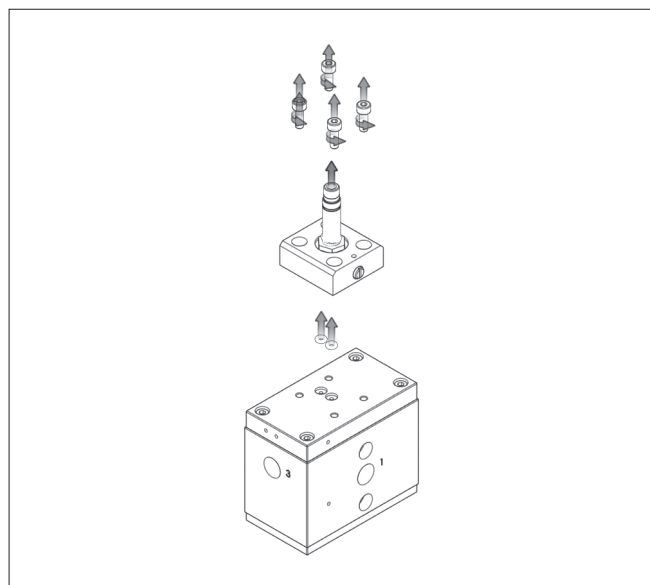
NOTE: It is advisable to replace all the rubber parts using genuine NELES spare kit. Numbers in parentheses, () indicate the bubble number (reference number) used on the NELES Assembly details and Part List.

6.1 DISASSEMBLY OF VAN 213 SERIES VALVE

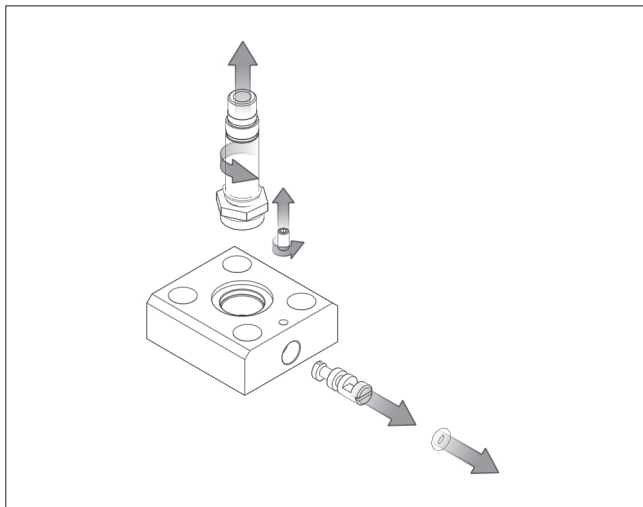
1. Remove Coil nut (27), after that remove Solenoid coil with connector (25 & 26).



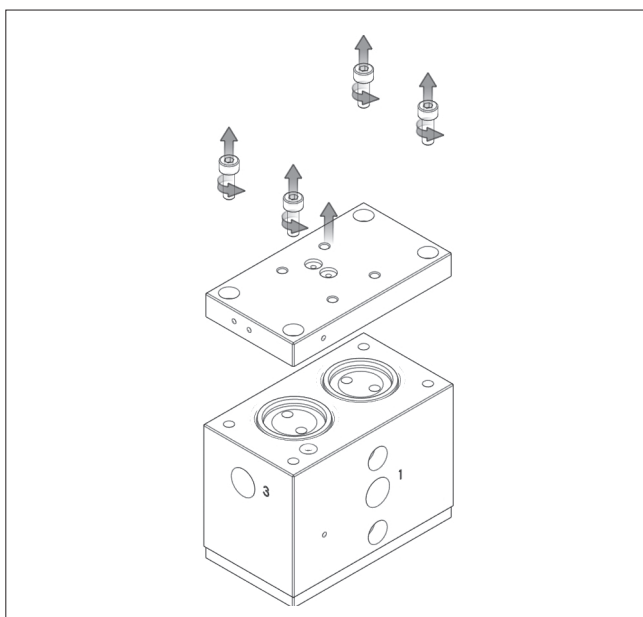
2. Remove the 4 Screws (32) by loosening them from Pilot Cover (4) and simultaneously remove the Pilot Cover Assembly afterwards. And remove 2 O-rings (22) from the Top Cover (2) groove.



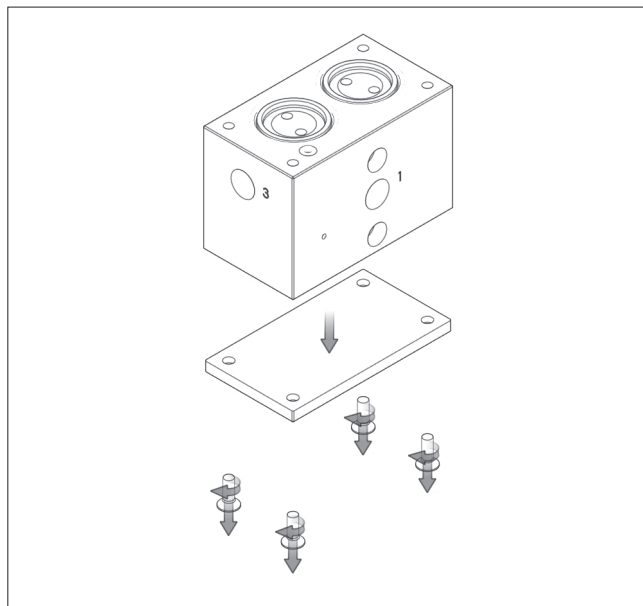
3. Remove Guide Plunger (13) by loosening from the Pilot Cover (4). For removing the Manual Override (5), remove the grub screw (31). Then remove the Manual Override (5) & O-Ring (23).



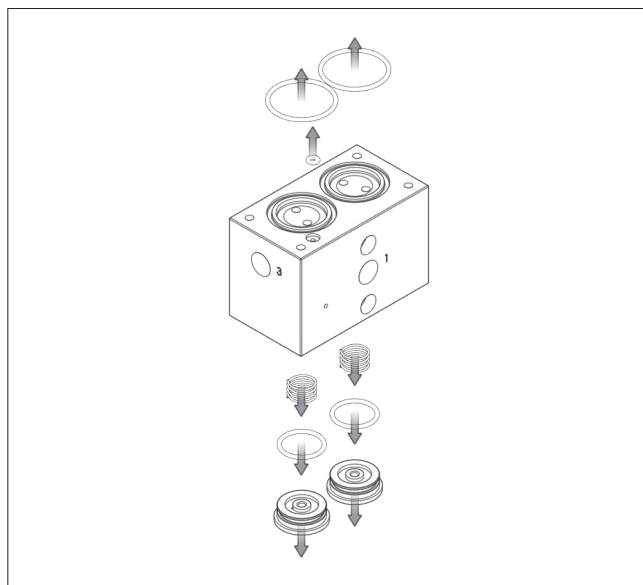
4. Remove the 4 Screws (32) by loosening them from the Top cover (2) and simultaneously remove the Top cover (2) afterwards.



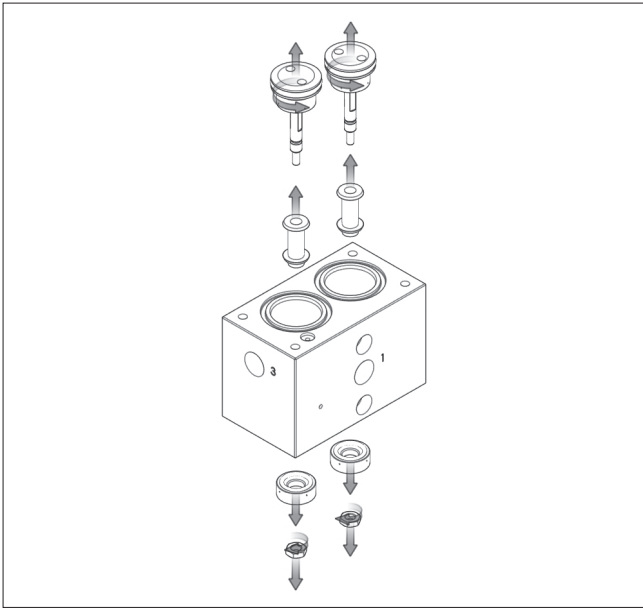
5. Remove the 4 Screws (33) by loosening them from the Bottom cover (3) and simultaneously remove the Bottom cover (3) afterwards.



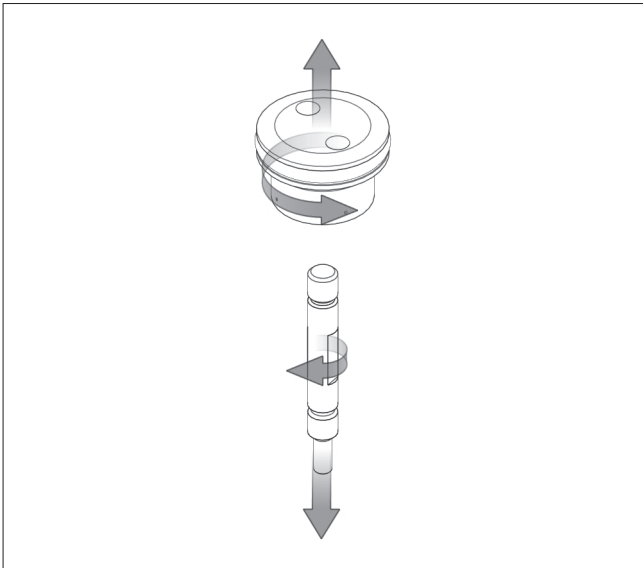
6. Remove O-Ring (18 & 22) from the Body (1). For removing the Spring (12) & O-Ring (21), first remove Spring Holder (11) as shown in fig.



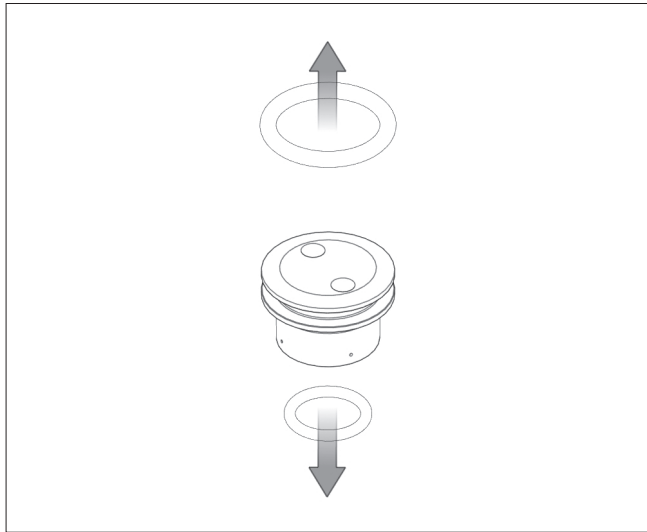
7. Remove the Piston Assembly with spacer (8), seat (11) from the Body Assembly. Use adjustable wrench to hold Piston and use box spanner to hold the flange nut (30). And rotate the wrench and box spanner in the direction as shown in the fig.



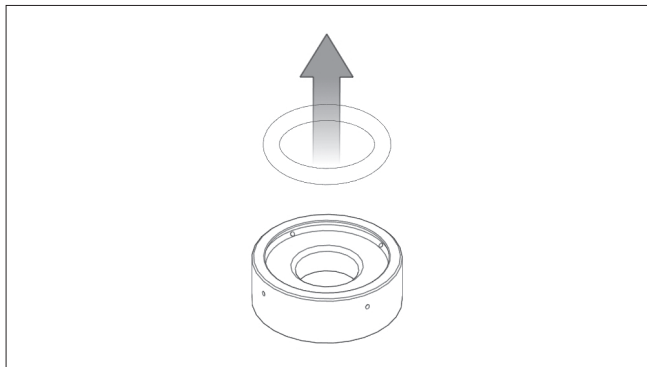
8. Remove the shaft (9) from the piston assembly as shown in the fig. Use adjustable wrench to hold piston (7) and spanner to rotate the shaft (9).



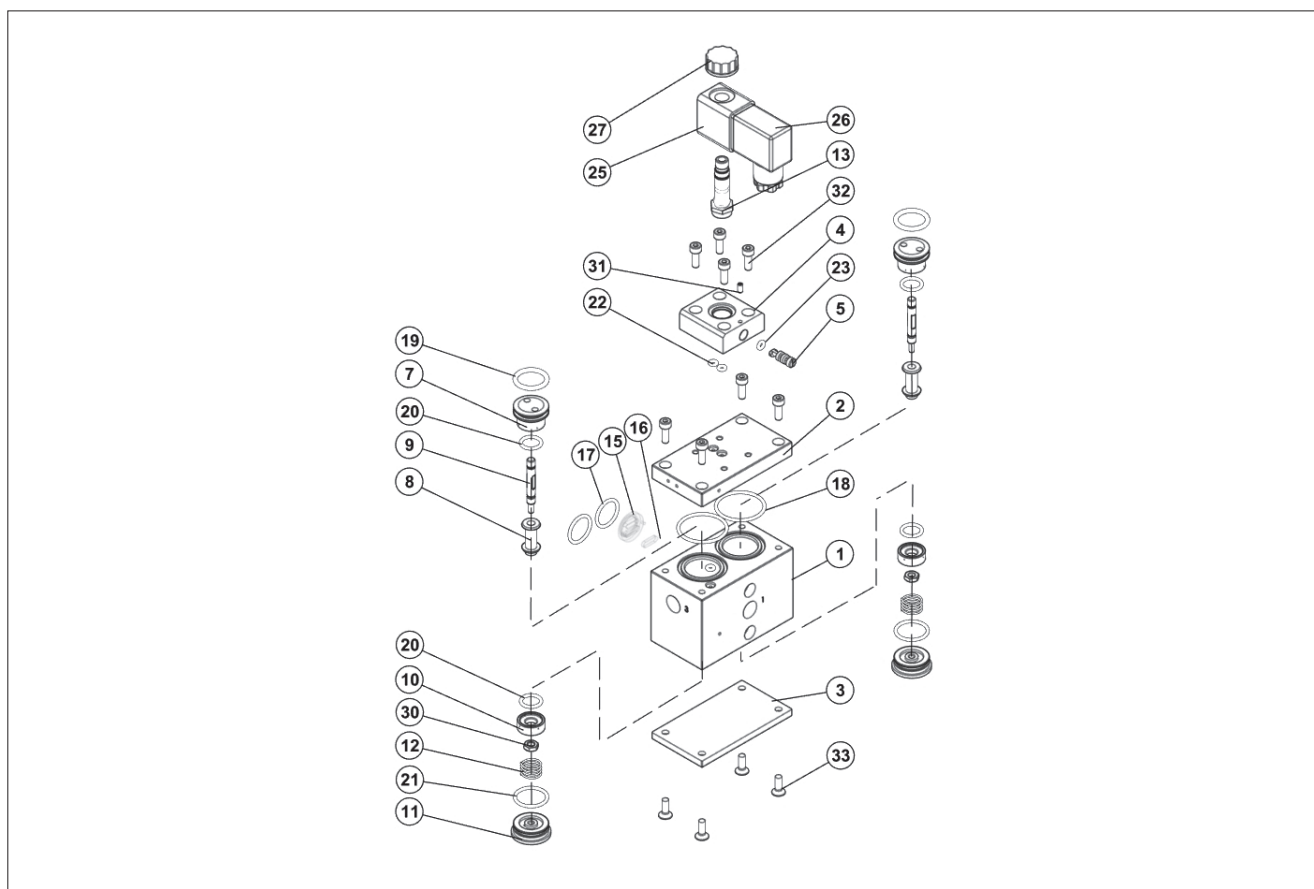
9. Remove O-ring (19 & 20) from the piston (7) as shown in fig.



10. Remove O-ring (20) from the Seat (10) as shown in fig.



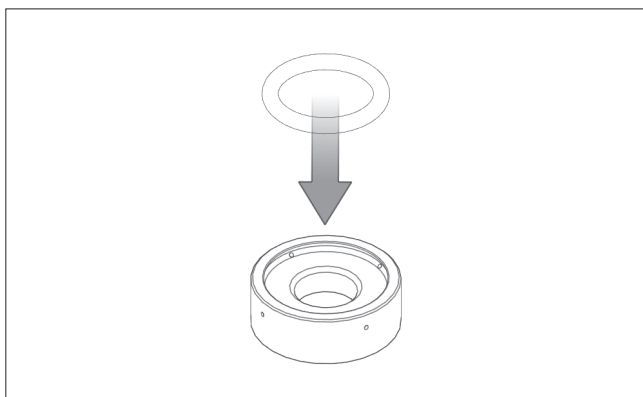
6.2 EXPLODED VIEW



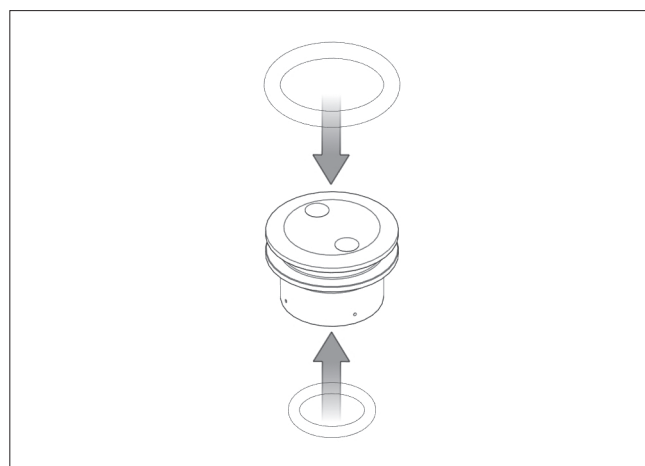
7. ASSEMBLY OF VAN 213 SERIES VALVE

NOTE: Follow the sequence as given below to ensure proper assembly.

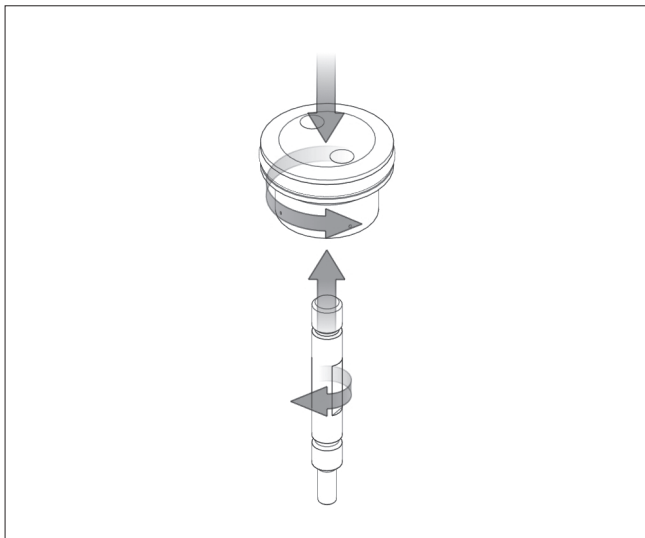
1. Clean all parts with soap water and dry.
2. Apply a layer of Valmet recommended grease to the inner face of the body (1). (Grease: NELES m 55).
3. Insert O-ring (20) in the Seat (11) as shown in fig.



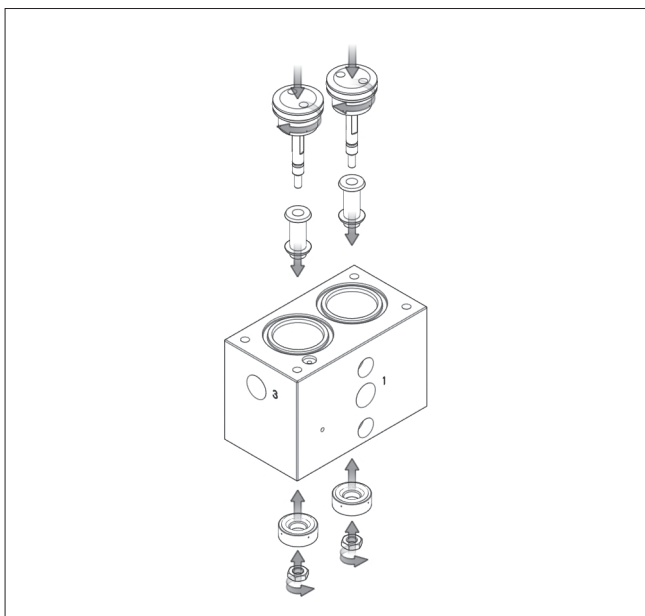
4. Insert O-ring (19 & 20) in the Piston (7) as shown in fig.



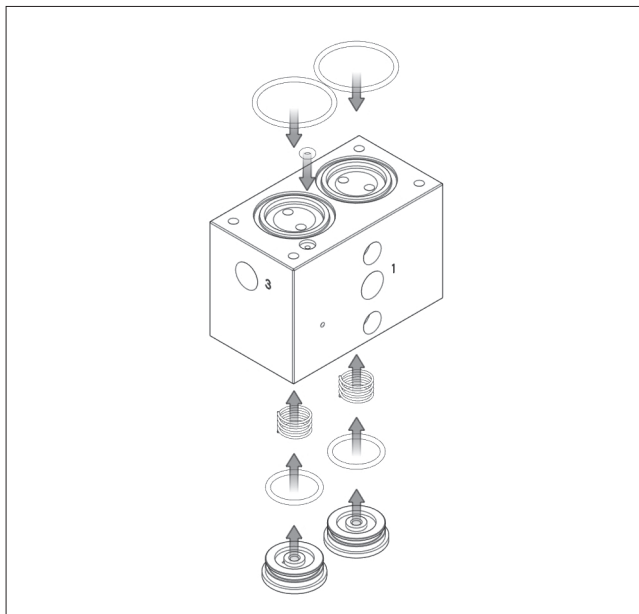
5. Screw the Piston assembly on the shaft (9) as shown in the fig. Use adjustable wrench to hold piston (7) and spanner to rotate the shaft (9).



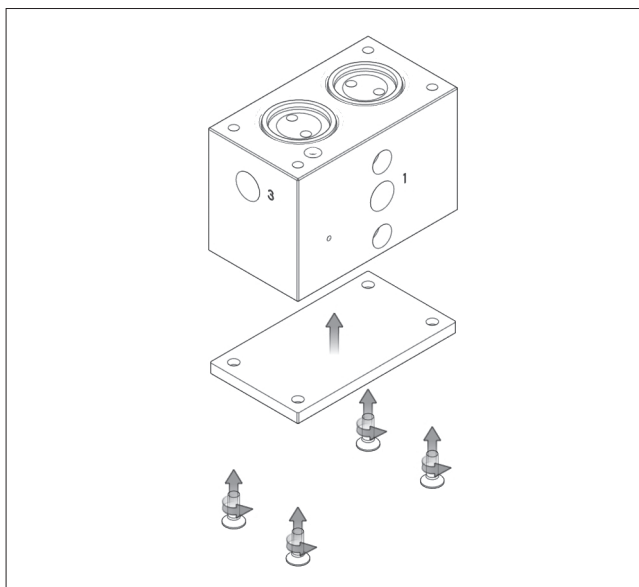
6. Insert the Piston and shaft assembly inside body with spacer (8), seat (11) and then from opposite side place both seat and screw it with flange nut (30). Use adjustable wrench to hold Piston and use box spanner to hold the flange nut (30). And rotate the wrench and box spanner in the direction as shown in the fig.



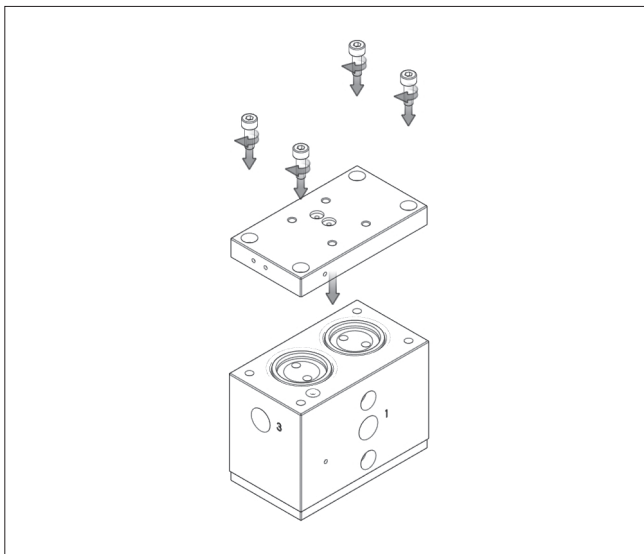
7. Place O-Ring (18 & 22) in the respective groove of the Body (1). Insert Spring (12) & O-ring (21) from the bottom of the Body (1). And to hold the spring (12), insert spring holder (11) in the Body (1).



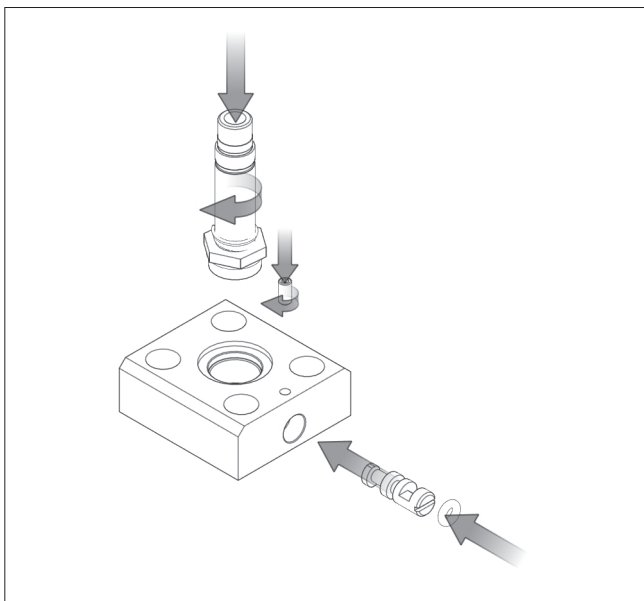
8. Place the Bottom cover (3) on the Body (1) and screw it with the help of 4 screws (33).



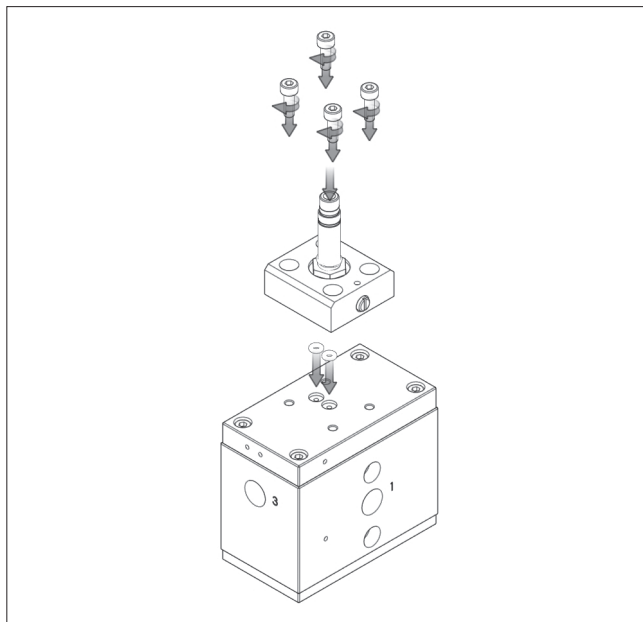
9. Place the Top cover (2) on the Body (1) and screw it with the help of 4 screws (32).



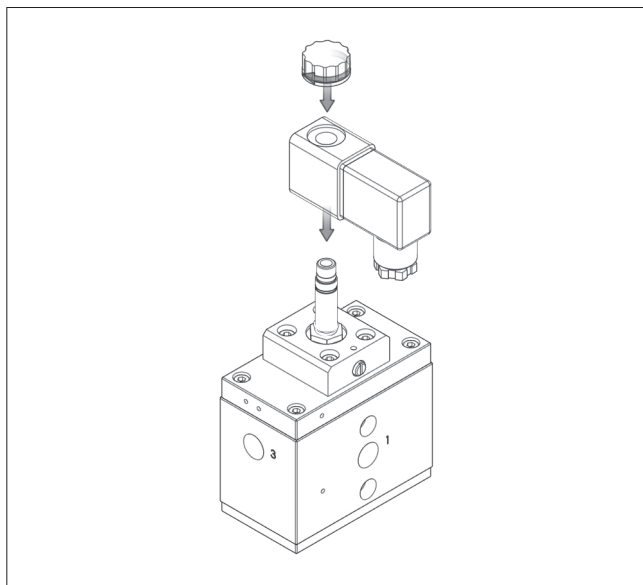
10. Screw the guide plunger (13) on the Pilot cover (4). Separately make the assembly of pilot cover (4), fit the manual override (5) on the Pilot cover (4) with O-ring (23). And screw the grub screw (31) into the pilot cover (4) to hold the manual override assembly.



11. Place the O-ring (22) in the respective groove of the Top cover (2). Place the Pilot cover assembly on the Top cover (2) and screw it with 4 screws (32).



12. Insert Solenoid coil with connector (25 & 26) and screw it with the coil nut (27).



7.1 PART LIST

Sr.No.:	Name	Quantity
1	BODY	1
2	TOP COVER	1
3	BOTTOM COVER	1
4	PILOT COVER	1
5	M.A.	1
6	ORIFICE	1
7	PISTON	2
8	SPACER	2
9	STEM	2
10	SEAT	2
11	SPRING HOLDER	2
12	SPRING	2
13	GUIDE PLUNGER	1
14	BALL	6
15	CONVERSION PLUG	1
16	CONVERSION SEAL	1
17	O-RING (16.3 x 1.78)	2
18	O-RING (28.30 x 1.78)	2
19	O-RING (17.12 x 2.62)	2
20	O-RING (10.82 x 1.78)	4
21	O-RING (18.77 x 1.78)	2
22	O-RING (2.78 x 1.78)	3
23	O-RING (2.90x 1.78)	1
25	COIL	1
26	SOCKET	1
27	NUT	1
28	M5 SOCKET SET SCREW	1
29	DIN 912 M5 x 45	2
30	M5 NUT	1
31	M3 SOCKET SCREW	1
32	DIN 912 M4	8
33	CSK FLAT HEAD SCREW M4	4
34	SILENCER	2
35	DUST CAP	5

8. PACKAGING & STORE

1. When not in use, VAN213 ASSEMBLY should be kept in a sealed plastic bag in a cardboard box to prevent moisture or dust from contacting products.
2. VAN213 SERIES VALVE should be stored in a dry place free from water and dust.
3. Store at temperature between 40°F and 120°F (4°C and 49°C).
4. Locate in an area to avoid damage by impact.

9. ASSISTANCE

For technical questions or assistance, contact any authorized distributor of Valmet Flow Control India Private limited or:

Valmet Flow Control Oy

Vanha Porvoontie 229, 01380 Vantaa, Finland.

Tel. +358 10 417 5000.

www.valmet.com/flowcontrol

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