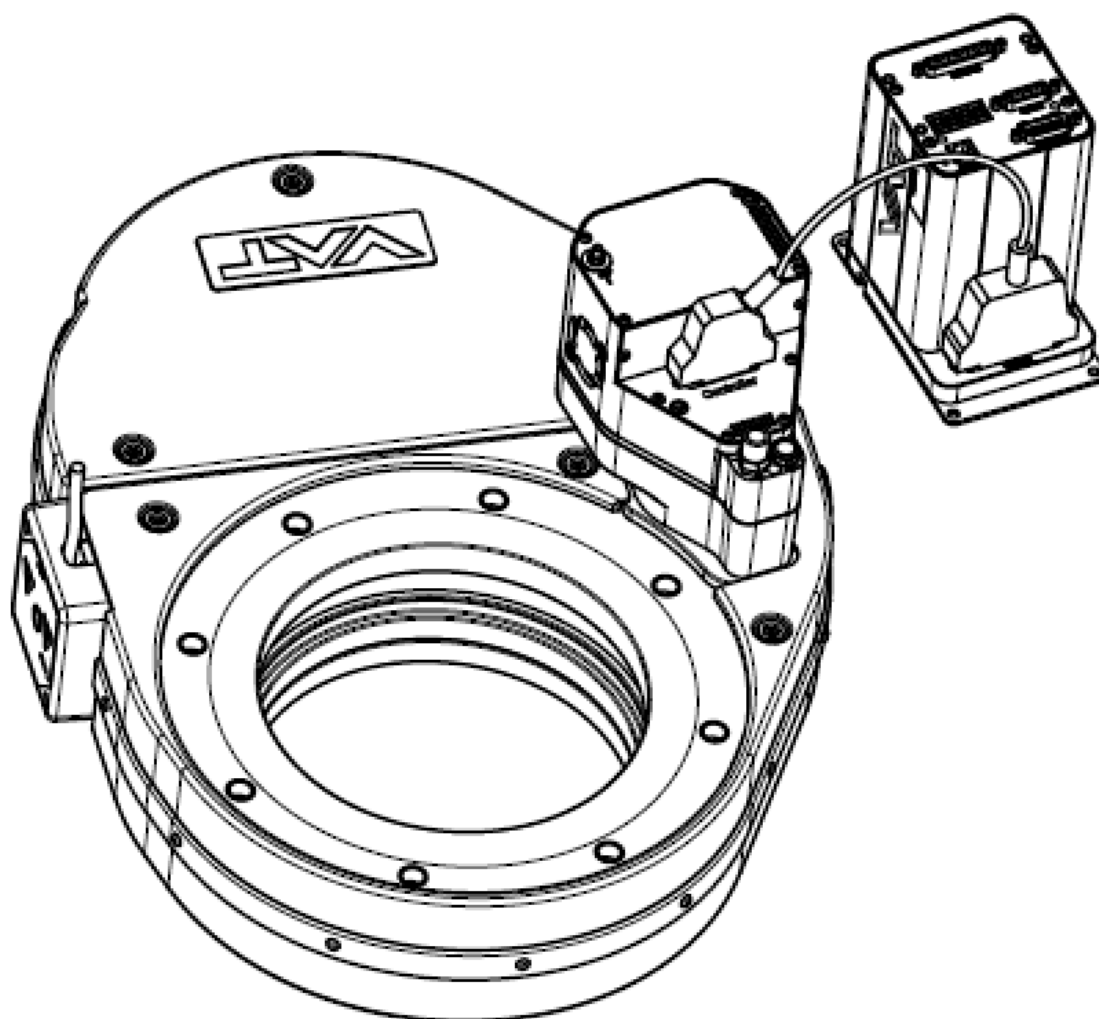


Installation, Operating & Maintenance Instructions



Series 653 With separated Controller



Sample picture

Imprint

Manufacturer VAT Vakuumventile AG, CH-9469 Haag, Switzerland

Website: www.vatvalve.com

Phone: +41 81 771 61 61

Fax: +41 81 771 48 30

Email: CH@vatvalve.com

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1 Description of product

1.1 Identification of product



1.2 Use of product

tbdb4

Use product for clean and dry vacuum applications only. Other applications are only allowed with the written permission of VAT.

1.3 Used abbreviations

tbdb94

1.4 Related documents

- Product Data Sheet
- Dimensional Drawing
- IOMI Heating device (if valve with heater)

1.5 Important information



This symbol points to a very important statement that requires particular attention.

Example:



Refer to chapter: «Technical data» for detailed information.


1.6 Technical data

Maximum cable length 4.5m

2 Safety

2.1 Compulsory reading material


Read this chapter prior to performing any work with or on the product. It contains important information that is significant for your own personal safety. This chapter must have been read and understood by all persons who perform any kind of work with or on the product during any stage of its serviceable life.


	NOTICE
	<p>Lack of knowledge</p> <p>Failing to read this manual may result in property damage. Firstly, read manual.</p>





These Installation, Operating & Maintenance Instructions are an integral part of a comprehensive documentation belonging to a complete technical system. They must be stored together with the other documentation and accessible for anybody who is authorized to work with the system at any time.

2.2 Danger levels



	⚠ DANGER
	<p>High risk</p> <p>Indicates a hazardous situation which, if not avoided, will result in death or serious injury.</p>

	⚠ WARNING
	<p>Medium risk</p> <p>Indicates a hazardous situation which, if not avoided, could result in death or serious injury.</p>



	⚠ CAUTION
	<p>Low risk</p> <p>Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.</p>

	NOTICE
	<p>Command</p> <p>Indicates a hazardous situation which, if not avoided, may result in property damage.</p>


2.3 Personnel qualifications


	 WARNING
	<p>Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.</p>

3 Installation

	 WARNING
	<p>Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.</p>

3.1 Electrical connection

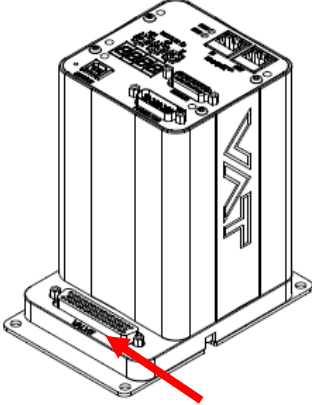
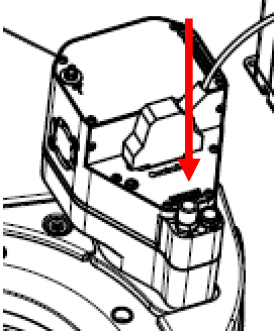
	NOTICE
	<p>Wrong connection Wrong connection may result in damage of controller or power supply. Connect all cables exactly as shown in the following descriptions and schematics.</p>

	NOTICE
	<p>Burned connector pins (spark) Connector pins or electronic parts could damage, if plugged and unplugged under power. Do not plug or unplug connectors under power.</p>

3.2 Installation into the system



Disconnect 24VDC power from the controller and wait for 60 seconds

Description		Required tool
<p>1. Connect link cable (male connector) to controller adapter connector X1 and fasten it.</p>	 <p style="text-align: center;">X1</p>	<p>Philips screw driver size 1</p>
<p>2. Connect link cable (female connector) to valve adapter connector X2 and fasten it.</p>	 <p style="text-align: center;">X2</p>	<p>Philips screw driver size 1</p>
<p>3. Install the valve in accordance with valve IOMI</p>		<p>Valve IOMI</p>


If you need any further information, please contact one of our service centers. You can find the addresses on our website: <http://www.vat.ch>

4 Repairs


Repairs may only be carried out by the VAT service staff. In exceptional cases, the customer is allowed to carry out the repairs, but only with the prior consent of VAT.

Please contact one of our service centers. You will find the addresses on our website www.vatvalve.com.

5 Dismounting and Storage

	⚠ WARNING
	Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.


5.1 Dismounting


	NOTICE
	Contamination Gate and other parts of the valve must be protected from contamination. Always wear clean room gloves when handling the valve.

	NOTICE
	Valve in open position Valve body may become damaged if valve gate is in open position. Move valve gate to the closed position before dismounting the valve.

1. Close the valve
2. For dismounting the valve please follow the instructions of chapter: «Installation», however in reverse order.



5.2 Storage



NOTICE	
	<p>Wrong storage</p> <p>Inappropriate temperatures and humidity may cause damage to the product.</p> <p>Valve must be stored at:</p> <ul style="list-style-type: none">– relative humidity between 10% and 70%– temperature between +10 °C and +50 °C– non-condensing environment


NOTICE	
	<p>Inappropriate packaging</p> <p>Product may get damaged if inappropriate packaging material is used.</p> <p>Always use the original packaging material and handle product with care.</p>

1. Clean / decontaminate valve.
2. Cover all valve openings with a protective foil.
3. Pack valve appropriately, by using the original packaging material.

6 Packaging and Transport

	 WARNING
	<p>Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.</p>


	 WARNING
	<p>Harmful substances Risk of injury in case of contact with harmful substances. Remove harmful substances (e. g. toxic, caustic or microbiological ones) from valve before you return the valve to VAT.</p>

	NOTICE
	<p>Inappropriate packaging Product may get damaged if inappropriate packaging material is used. Always use the original packaging material and handle product with care.</p>



- When returning products to VAT, please fill out the VAT form «Declaration of Chemical Contamination of Vacuum Valves and Components» and send it to VAT in advance. The form can be downloaded from our website www.vatvalve.com (Section: Services – Aftersales).
- If products are radioactively contaminated, the VAT form «Contamination and Radiation Report» must be filled out. Please contact VAT in advance.
- If products are sent to VAT in contaminated condition, VAT will carry out the decontaminating procedure at the customer's expense.

6.1 Packaging


	NOTICE
	<p>Valve in open position Valve mechanism may get damaged if valve is in open position. Make sure that the valve is closed.</p>

1. Cover all valve openings with a protective foil.
2. Pack valve appropriately, by using the original packaging material.



VAT disclaims any liability for damages resulting from inappropriate packaging.

6.2 Transport


NOTICE	
	<p>Inappropriate packaging Product may get damaged if inappropriate packaging material is used. Always use the original packaging material and handle product with care.</p>





VAT disclaims any liability for damages resulting from inappropriate packaging.


7 Disposal

Observe the local regulations for disposal

	⚠ WARNING
	<p>Harmful substances Environmental pollution. Discard products and parts according to the local regulations.</p>

	⚠ WARNING
	<p>Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the disposal.</p>

	⚠ CAUTION
	<p>Risk of damage Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury. A large number of diverse materials are used in the product. Some of them could cause human and machine damage in the case of improper handling.</p> <ul style="list-style-type: none"> • Observe local regulations in regard to waste disposal without fail. • Commission an authorized waste disposal company for the professional disposal of your waste.

	NOTICE
	<p>Improper disposal Some built-in materials can cause damage, if improperly handled. - When disposing, take into account all the different materials used</p>




- Hire an authorised waste disposal company to dispose of the waste in a professional manner.

The following list should help you to dismantle your product without making serious errors and to properly separate out the product scrap.

Material groups	Hazard level
non-ferrous metals	high
stainless steel	low
aluminium	low
plastics	medium
lubricants	high
electronic scrap	high
batteries	very high
cables and wires	medium
motors	medium
seals and rubber parts	high

8 Spare parts

	NOTICE
<p>Non-original spare parts Non-original spare parts may cause damage to the product. Use original spare parts from VAT only.</p>	



- Please specify the fabrication number of the product when you place an order for spare parts; see chapter: «Identification of product». This is to ensure that the appropriate spare parts are supplied.
- VAT makes a difference between spare parts that may be replaced by the customer and those that need to be replaced by the VAT service staff.
- The following table(s) contain spare parts that may be replaced by the customer. If you need any other spare parts, please contact one of our service centers. You will find the addresses on our website www.vatvalve.com.



Please specify the **fabrication number of the valve** (see yellow label on valve) when ordering spare parts. This is to ensure that the appropriate spare parts are supplied.

Description	Part number
Valve adapter	1015317
Controller	To many to list
Link cable 1.5m	On request
Link cable 2m	On request
Link cable 5m	On request



9 Appendix

No information entered on time.

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