

SERIES 5700 GENERAL PURPOSE FLOW CONTROLLER

INTRODUCTION

The USFilter's Wallace & Tiernan Products (USF/W&T) Series 5700 General Purpose Flow Controller described in this instruction book has been designed to maintain a constant flow through a flow measuring device regardless of pressure variations within the listed limits. High or low capacity inlet arrangements are available.

This instruction book provides technical data, installation, service, and parts information on the Series 5700 Flow Controllers.



WARNING: TO AVOID POSSIBLE SEVERE PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT, THIS EQUIPMENT SHOULD BE INSTALLED, OPERATED AND SERVICED ONLY BY TRAINED, QUALIFIED PERSONNEL WHO ARE THOROUGHLY FAMILIAR WITH THE ENTIRE CONTENTS OF THIS INSTRUCTION BOOK.

TECHNICAL DATA

MODEL NUMBER	MAX. CAP.		MAX. TEMP. (°F)	MAX. INLET PRESS.	PRESS. DROP AT MAX. FLOW RATE	MATERIALS OF CONSTRUCTION				NPT CONN.
	AIR FLOW SCFM	H ₂ O FLOW GPM				HOUSING	DIAPH.	STEM	O-RINGS	
5710	5	1	450	250 PSI	8 PSI	316SS	TEFLON	316SS	VITON	1/2"
5720	53	10	450	250 PSI	25 PSI	316SS	TEFLON	316SS	VITON	3/4"



WARNING: TO AVOID DAMAGE TO EQUIPMENT OR POSSIBLE SEVERE INJURY TO PERSONNEL, OBSERVE THE FOLLOWING SAFETY RELATED PRECAUTIONS:

- 1. DO NOT EXCEED MAXIMUM PRESSURE AND TEMPERATURE LIMITS.**
- 2. RELIEVE PRESSURE AND DRAIN SYSTEM BEFORE SERVICING FLOW CONTROLLERS.**



WARNING: WHEN USING HAZARDOUS MATERIAL, OBSERVE ALL SAFETY PRECAUTIONS RECOMMENDED BY THE MATERIAL MANUFACTURER/SUPPLIER.

FLOW CONTROLLER

SERVICE (SEE DWGS. 570.580.000.011 AND 570.580.000.021)

If flow controllers malfunction, refer to Troubleshooting Guide for the probable cause, and the following section for disassembly and assembly procedures.



WARNING: TO AVOID POSSIBLE SEVERE PERSONAL INJURY, RELIEVE ALL PRESSURE AND DRAIN SYSTEM BEFORE SERVICING FLOW CONTROLLER.

CONTROL VALVE

The control valve stem (9), O-rings (12), and stem nut (10), may be serviced with the valve in the line. Remove flow controller from the line to perform all other service.

To replace the control valve O-rings, proceed as follows:

- a. Open the valve fully. Unscrew stem nut (10) from inlet housing (15).
- b. Remove setscrew and knob (8).
- c. Unscrew control stem (9) downward completely through the stem nut (10).
- d. Replace O-ring (11) and two O-rings (12) on control stem (9). Apply a thin coating of silicone grease U10242 to the O-rings to facilitate assembly and disassembly.
- e. Reassemble using steps a through d, above, in reverse order.

MAINTENANCE

The flow controllers require no routine maintenance. As the internal flow area is extremely small and close tolerances are required, clean room assembly procedures are used at the factory to ensure trouble-free operation. Should a purge of the internal passages become necessary, clean dry gas may be used in both forward and reverse flow directions. The controller should be returned to USF/W&T for repair or exchange in the event of dissatisfactory function. If the controller is disassembled by the customer, the warranty is voided and no credit will be issued.

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TROUBLESHOOTING GUIDE

The following troubleshooting guide applies to both high and low capacity controllers.

PROBLEM	PROBABLE CAUSE	REMEDY
Controller fails to regulate.	Dirt on diaphragm stem and/or stem seat.	Wipe clean. Use solvent or detergent, if required.
	Damaged diaphragm stem or stem seat.	Call USF/W&T for service.
	Controller installed backwards.	Install correctly.
	Damaged diaphragm.	Call USF/W&T for service.
	Hole in outlet casting for communicating static pressure is blocked.	Clean out hole.
Controller fails to pass sufficient flow.	Inlet obstructed.	Clear inlet.
	Pressure differential across controller is too low.	Increase differential pressure.
Controller leaks.	Diaphragm sealant is missing.	Call USF/W&T for service.
	Clamping screws loose.	Tighten screws.
	O-ring damaged.	Replace O-ring.

WARNING LABELS

The following warning labels are attached to the equipment.

L2253: TO AVOID INJURY DO NOT EXCEED TEMP. & PRESS. LIMITS OF 450°F & 250 P.S.I. MAXIMUM. MODEL 5710 INLET FLOW CONTROLLER.

L2254: TO AVOID INJURY DO NOT EXCEED TEMP. & PRESS. LIMITS OF 450°F & 250 P.S.I. MAXIMUM. MODEL 5720 INLET FLOW CONTROLLER.

FLOW CONTROLLER

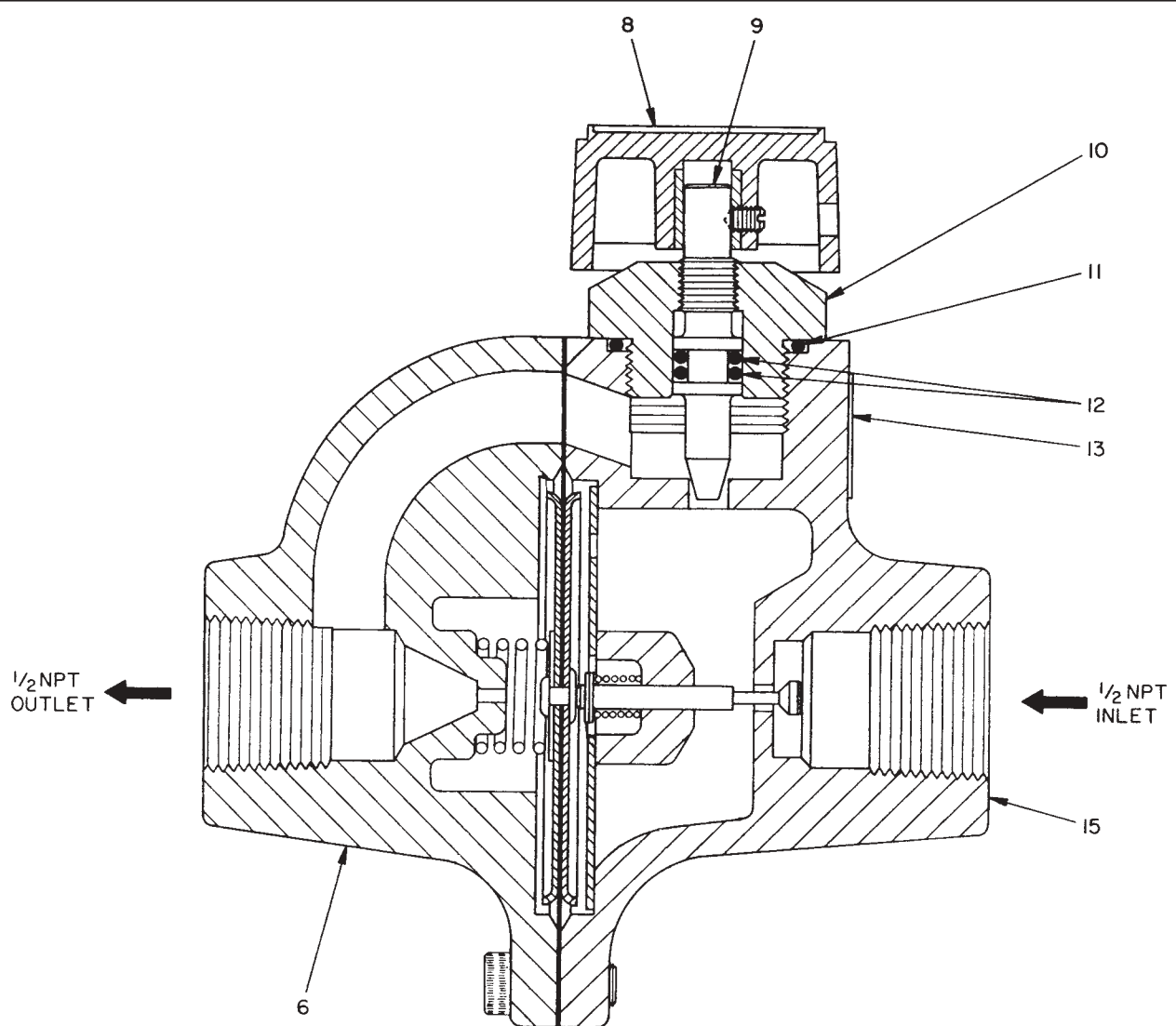
SPARE PARTS

QTY.	DESCRIPTION	PART NO.
1	O-Ring	PXA52246
1	Knob	U25070
1	Control Stem (low capacity)	NP2482
2	O-Ring	PXA25900
1	Nut, Stem	NP2620
1	Control Stem (high capacity)	NP2480
1	Silicone grease	U10242



WARNING: TO ENSURE PROPER AND SAFE OPERATION OF THIS EQUIPMENT, USE ONLY USF/W&T LISTED PARTS EXCEPT COMMERCIALY AVAILABLE PARTS AS IDENTIFIED BY COMPLETE DESCRIPTION ON PARTS LIST. THE USE OF UNLISTED PARTS CAN RESULT IN EQUIPMENT MALFUNCTIONS CAUSING POSSIBLE SEVERE PERSONAL INJURY.

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KEY NO.	PART NO.	QTY.	DESCRIPTION
6	NP2741	1	OUTLET HOUSING (1/2 NPT)
8	U25070	1	KNOB
9	NP2482	1	CONTROL STEM
10	NP2620	1	STEM NUT
11	PXA52246	1	O-RING (021) VITON, 15/16" ID x 1-1/16" OD
12	PXA25900	2	O-RING (010) VITON, 1/4" ID x 3/8" OD
13	L2253	1	WARNING LABEL
15	NP2740	1	INLET HOUSING (1/2 NPT)

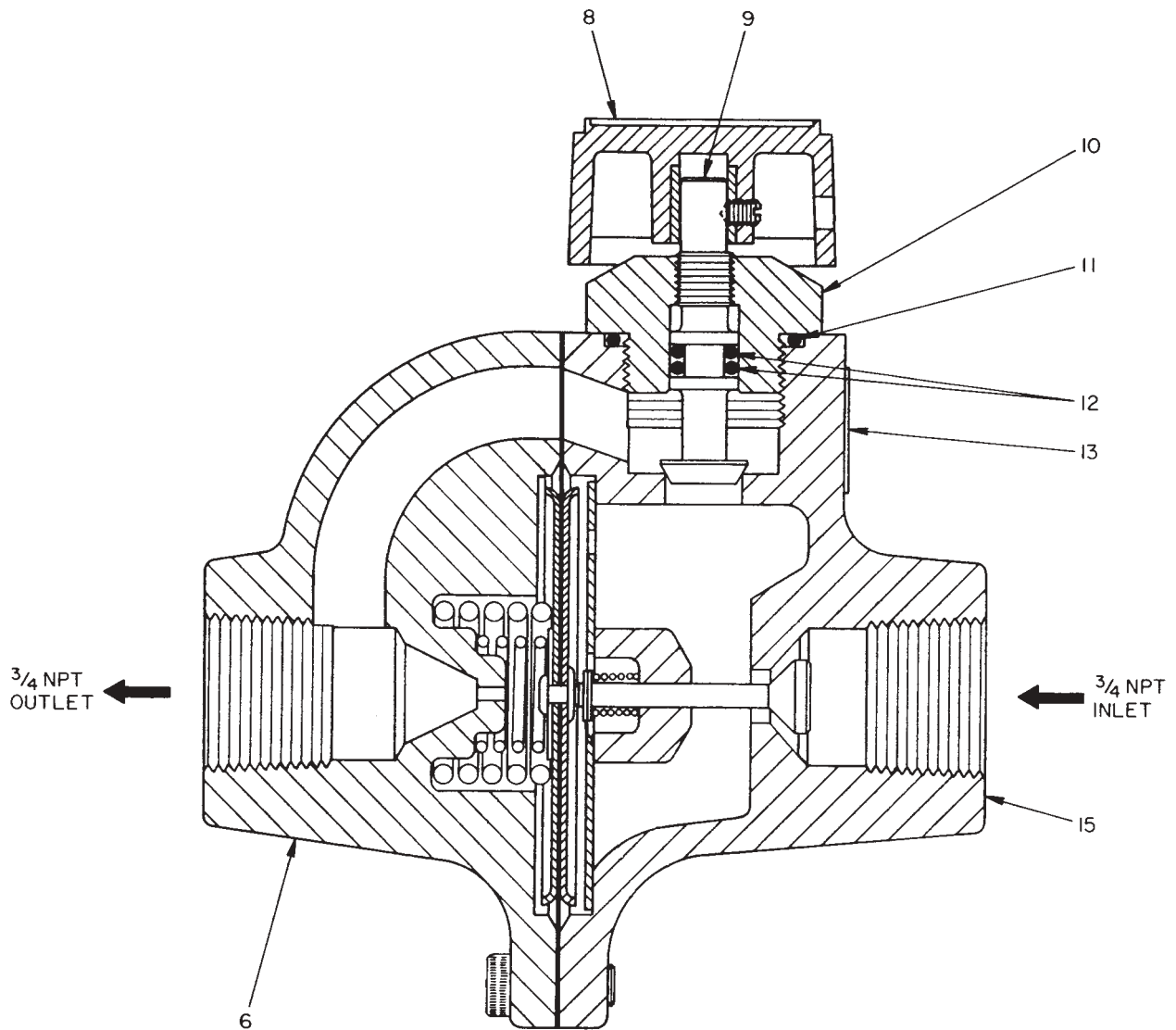
WHEN ORDERING MATERIAL ALWAYS SPECIFY MODEL AND SERIAL NUMBER OF APPARATUS.

MODEL 5710 GENERAL PURPOSE FLOW CONTROLLER - PARTS
Low Capacity

570.580.000.011

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FLOW CONTROLLER



KEY NO.	PART NO.	QTY.	DESCRIPTION
6	NP2477	1	OUTLET HOUSING (3/4 NPT)
8	U25070	1	KNOB
9	NP2480	1	CONTROL STEM
10	NP2620	1	STEM NUT
11	PXA52246	1	O-RING (021) VITON, 15/16" ID x 1-1/16" OD
12	PXA25900	2	O-RING (010) VITON, 1/4" ID x 3/8" OD
13	L2254	1	WARNING LABEL
15	NP2742	1	INLET HOUSING (3/4 NPT)

WHEN ORDERING MATERIAL ALWAYS SPECIFY MODEL AND SERIAL NUMBER OF APPARATUS.

MODEL 5720 GENERAL PURPOSE FLOW CONTROLLER - PARTS
High Capacity

570.580.000.021

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FLOW CONTROLLER

WARRANTY

Seller warrants for a period of one year after shipment that the equipment or material of its manufacture is free from defects in workmanship and materials. Corrosion or other decomposition by chemical action is specifically excluded as a defect covered hereunder, except this exclusion shall not apply to chlorination equipment. Seller does not warrant (a) damage caused by use of the items for purposes other than those for which they were designed, (b) damage caused by unauthorized attachments or modifications, (c) products subject to any abuse, misuse, negligence or accident, (d) products where parts not made, supplied, or approved by Seller are used and in the sole judgement of the Seller such use affects the products' performance, stability or reliability, and (e) products that have been altered or repaired in a manner in which, in the sole judgement of Seller, affects the products' performance, stability or reliability. **SELLER MAKES NO OTHER WARRANTY OF ANY KIND, AND THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS OF THE MATERIAL OR EQUIPMENT FOR ANY PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO SELLER.** If Buyer discovers a defect in material or workmanship, it must promptly notify Seller in writing; Seller reserves the right to require the return of such defective parts to Seller, transportation charges prepaid, to verify such defect before this warranty is applicable. In no event shall such notification be received by Seller later than 13 months after the date of shipment. No action for breach of warranty shall be brought more than 15 months after the date of shipment of the equipment or material.

LIMITATION OF BUYER'S REMEDIES. The **EXCLUSIVE REMEDY** for any breach of warranty is the replacement f.o.b. shipping point of the defective part or parts of the material or equipment. Any equipment or material repaired or replaced under warranty shall carry the balance of the original warranty period, or a minimum of three months. Seller shall not be liable for any liquidated, special, incidental or consequential damages, including without limitation, loss of profits, loss of savings or revenue, loss of use of the material or equipment or any associated material or equipment, the cost of substitute material or equipment, claims of third parties, damage to property, or goodwill, whether based upon breach of warranty, breach of contract, negligence, strict tort, or any other legal theory; provided, however, that such limitation shall not apply to claims for personal injury.

Statements and instructions set forth herein are based upon the best information and practices known to U.S. Filter/Wallace & Tiernan, Inc., but it should not be assumed that every acceptable safety procedure is contained herein. Of necessity this company cannot guarantee that actions in accordance with such statements and instructions will result in the complete elimination of hazards and it assumes no liability for accidents that may occur.