

# DANIEL MODEL V-188 CONTROL VALVE

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## **INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS**

**DANIEL MEASUREMENT AND CONTROL, INC.  
AN EMERSON PROCESS MANAGEMENT COMPANY  
HOUSTON, TEXAS**

**Part Number 3-9008-590  
Revision A**

**SEPTEMBER 2010**





## IMPORTANT INSTRUCTIONS

Daniel Measurement and Control, Inc. (Daniel) designs, manufactures and tests products to function within specific conditions. Because these products are sophisticated technical instruments, it is important that the owner and operation personnel must strictly adhere both to the information printed on the product nameplate and to all instructions provided in this manual prior to installation, operation, and maintenance.



**Installing, operating or maintaining a Daniel Product improperly could lead to serious injury or death from explosion or exposure to dangerous substances. Comply with all information on the product, in this manual, and in any local and national codes that apply to the product. Do not allow untrained personnel to work with this product. Use Daniel parts and work procedures specified in this manual.**

Daniel also urges you to integrate this manual into your training and safety program.

**BE SURE ALL PERSONNEL READ AND FOLLOW THE INSTRUCTIONS  
IN THIS MANUAL AND ALL PRODUCT WARNINGS.**

Product Owners (Purchasers):

1. Use the correct product for the environment and pressures present. If you are unsure, discuss your needs with your Daniel representative.
2. Inform and educate all personnel in the proper installation, operation, and maintenance of this product.
3. To ensure proper performance, only informed and trained personnel should install, operate, repair and maintain this product.
4. Save this instruction manual for future reference.
5. If you resell or transfer this product, it is your responsibility to forward this instruction manual along with the product to the new owner or transferee.

Product Operation Personnel (Personnel):

1. Read and understand all instructions and operating procedures for this product.
2. Install this product as specified in the INSTALLATION section of this manual per applicable local and national codes.
3. Follow all warnings, cautions, and notices marked on, and supplied with, this product.
4. Follow all instructions during the installation, operation, and maintenance of this product.
5. To prevent personal injury, ensure that all components are in place prior to and during operation of the product.
6. Connect all products to the proper electrical and pressure sources when and where applicable.

7. If you do not understand an instruction, or do not feel comfortable following the instructions, contact your Daniel representative for clarification or assistance.
8. If this instruction manual is not the correct manual for your Daniel product, telephone Daniel at 1-713-827-6314 and Daniel will provide you with the requested manual. You may also download the correct manual from <http://www.daniel.com>.
9. Use only replacement parts specified by Daniel. Unauthorized parts and procedures can affect this product's performance, safety, and invalidate the warranty. "Look-a-like" substitutions may result in deadly fire, explosion, release of toxic substances or improper operation.
10. Save this instruction manual for future reference.

**DANIEL MEASUREMENT AND CONTROL, INC.  
DANIEL MODEL V-188 CONTROL VALVE  
INSTALLATION, OPERATING AND  
MAINTENANCE INSTRUCTIONS**

**NOTICE**

THE CONTENTS OF THIS PUBLICATION ARE PRESENTED FOR INFORMATIONAL PURPOSES ONLY, AND WHILE EVERY EFFORT HAS BEEN MADE TO ENSURE THEIR ACCURACY, THEY ARE NOT TO BE CONSTRUED AS WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, REGARDING THE PRODUCTS OR SERVICES DESCRIBED HEREIN OR THEIR USE OR APPLICABILITY. ALL SALES ARE GOVERNED BY DANIEL'S TERMS AND CONDITIONS, WHICH ARE AVAILABLE UPON REQUEST. WE RESERVE THE RIGHT TO MODIFY OR IMPROVE THE DESIGNS OR SPECIFICATIONS OF SUCH PRODUCTS AT ANY TIME.

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PRODUCT NAMES USED HEREIN ARE FOR MANUFACTURER OR SUPPLIER IDENTIFICATION ONLY AND MAY BE TRADEMARKS/REGISTERED TRADEMARKS OF THESE COMPANIES.

DANIEL AND THE DANIEL LOGO ARE REGISTERED TRADEMARKS OF DANIEL INDUSTRIES, INC. THE EMERSON LOGO IS A TRADEMARK AND SERVICE MARK OF EMERSON ELECTRIC CO.

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HOUSTON, TEXAS, U.S.A.**

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## **WARRANTY**

1. **LIMITED WARRANTY:** Subject to the limitations contained in Section 2 herein, Daniel Measurement & Control, Inc. ("Daniel") warrants that the licensed firmware embodied in the Goods will execute the programming instructions provided by Daniel, and that the Goods manufactured by Daniel will be free from defects in materials or workmanship under normal use and care and Services will be performed by trained personnel using proper equipment and instrumentation for the particular Service provided. The foregoing warranties will apply until the expiration of the applicable warranty period. Goods are warranted for twelve (12) months from the date of initial installation or eighteen (18) months from the date of shipment by Daniel, whichever period expires first. Consumables and Services are warranted for a period of 90 days from the date of shipment or completion of the Services. Products purchased by Daniel from a third party for resale to Buyer ("Resale Products") shall carry only the warranty extended by the original manufacturer. Buyer agrees that Daniel has no liability for Resale Products beyond making a reasonable commercial effort to arrange for procurement and shipping of the Resale Products. If Buyer discovers any warranty defects and notifies Daniel thereof in writing during the applicable warranty period, Daniel shall, at its option, correct any errors that are found by Daniel in the firmware or Services or repair or replace F.O.B. point of manufacture that portion of the Goods or firmware found by Daniel to be defective, or refund the purchase price of the defective portion of the Goods/Services. All replacements or repairs necessitated by inadequate maintenance, normal wear and usage, unsuitable power sources or environmental conditions, accident, misuse, improper installation, modification, repair, use of unauthorized replacement parts, storage or handling, or any other cause not the fault of Daniel are not covered by this limited warranty, and shall be at Buyer's expense. Daniel shall not be obligated to pay any costs or charges incurred by Buyer or any other party except as may be agreed upon in writing in advance by Daniel. All costs of dismantling, reinstallation and freight and the time and expenses of Daniel's personnel and representatives for site travel and diagnosis under this warranty clause shall be borne by Buyer unless accepted in writing by Daniel. Goods repaired and parts replaced by Daniel during the warranty period shall be in warranty for the remainder of the original warranty period or ninety (90) days, whichever is longer. This limited warranty is the only warranty made by Daniel and can be amended only in a writing signed by Daniel. THE WARRANTIES AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE.

THERE ARE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE OR ANY OTHER MATTER WITH RESPECT TO ANY OF THE GOODS OR SERVICES. **Buyer acknowledges and agrees that corrosion or erosion of materials is not covered by this warranty.**

2. **LIMITATION OF REMEDY AND LIABILITY:** DANIEL SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE. THE REMEDIES OF BUYER SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL DANIEL'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE TO BUYER OF THE SPECIFIC GOODS MANUFACTURED OR SERVICES PROVIDED BY DANIEL GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. BUYER AGREES THAT IN NO EVENT SHALL DANIEL'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. THE TERM "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF ANTICIPATED PROFITS, REVENUE OR USE AND COSTS INCURRED INCLUDING WITHOUT LIMITATION FOR CAPITAL, FUEL AND POWER, AND CLAIMS OF BUYER'S CUSTOMERS.

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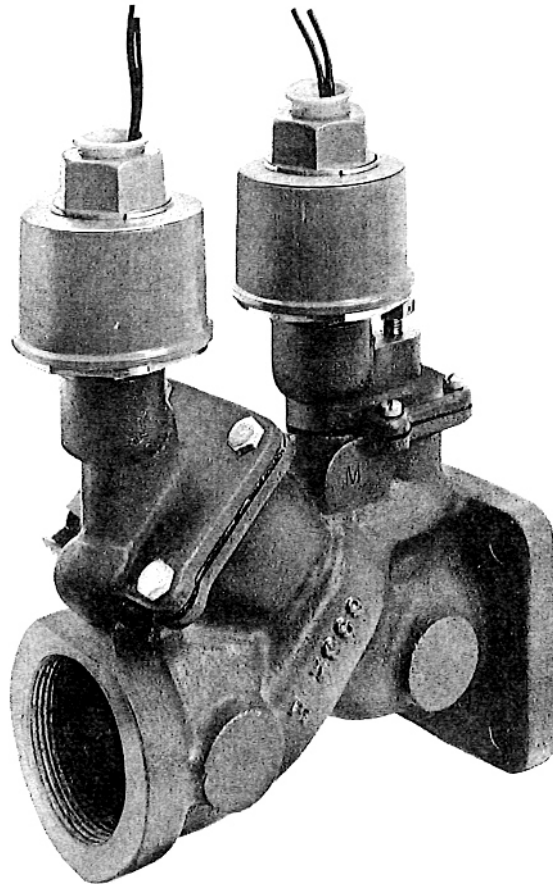
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**1.0 INTRODUCTION****1.1 Description**

The Daniel Model V-188 Control Valve is an electrohydraulic two stage valve which utilizes the internal energy of a flowing fluid to provide valve actuation. The valve operates on differential pressure from inlet to outlet.



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2.0 SPECIFICATIONS



**PERSONAL INJURY AND/OR EQUIPMENT DAMAGE**

**Do not exceed specifications listed below.**

Failure to heed this warning could result in serious injury and/or damage to the equipment.

**Ratings:**

Maximum Working Pressure	150 psig
Maximum Working Temperature	150°F (-20°F minimum)
for higher operating temperature	contact factory

**Connections:**

Solenoid Power Requirements: 12 volts d.c. (9.7 watts)

Solenoid Power Connection: 1/2" female NPT conduit connection

Valve Connections: Inlet - 2" square flanged  
 Outlet - 2" Female NPT

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**3.0 INSTALLATION**

**3.1 Service Information**

If the Daniel Model V-188 Control Valve needs repair, contact the nearest Daniel Measurement and Control Sales or Service Office. It is important that servicing be performed by trained and qualified service personnel.

**3.2 Mounting**

The valve is installed in a suitable line by bolting the inlet flange to a mating flange and by connecting the outlet threaded port to a 2" male (NPT) pipe fitting. The solenoids are 12 volt dc and must be connected to a suitable power supply.

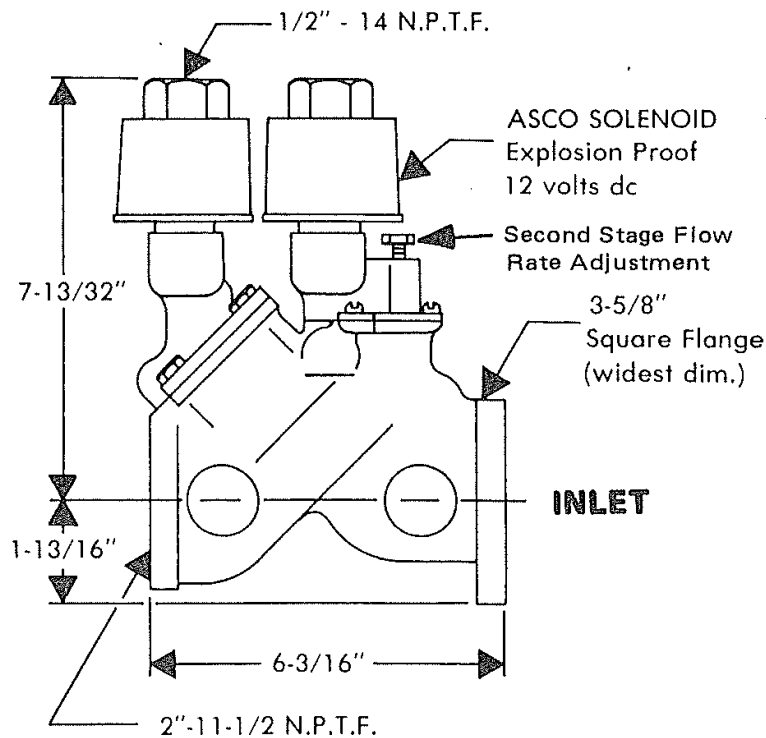


Figure 3-1 Dimensions

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4.0 OPERATION

4.1 Opening (Reference Figure 4-1)

The valve is opened by energizing both solenoid valves simultaneously. This causes the solenoid plungers (Item 6A) to move upward and open the drain orifice of each seat (Item 13A). Pressure behind the pistons (Items 2 and 9) bleeds to downstream, or low pressure, through the relatively large orifice faster than high pressure fluid can bleed into the piston chamber through the orifice in the end or nose of each piston. As a result, high pressure under each piston overcomes the spring and friction forces and causes the pistons to move upward, causing the valve to open.

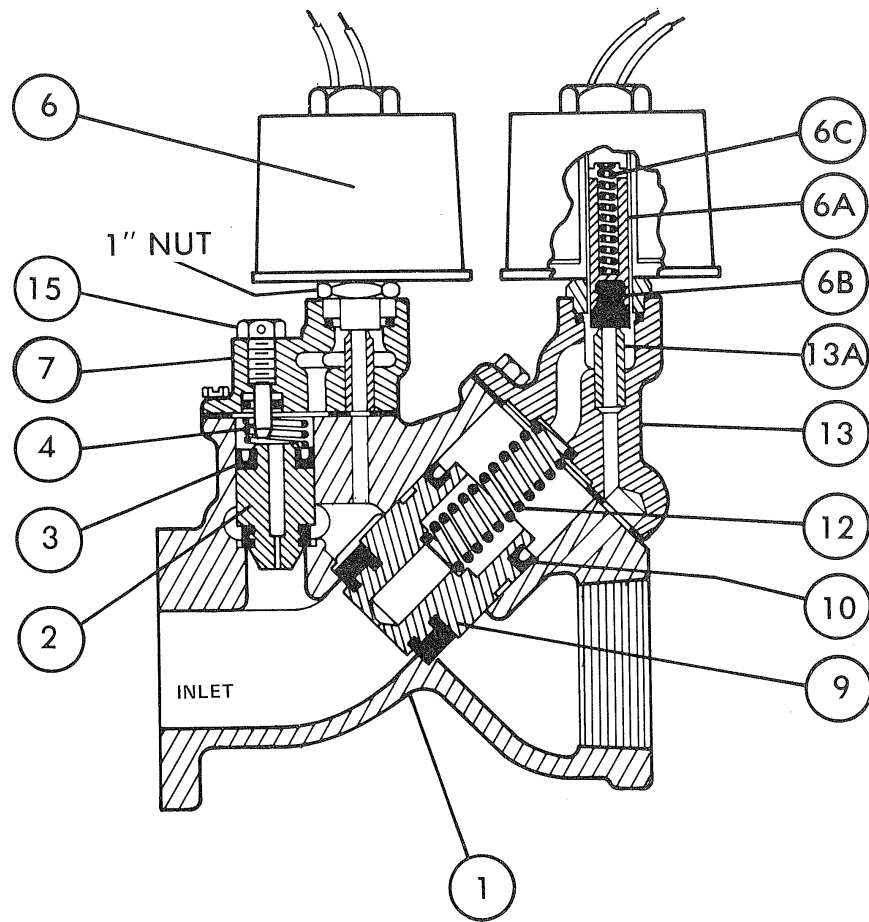


Figure 4-1. Cross Section

## 4.2 Closing (Reference Figure 4-1)

### TWO STAGE CLOSURE

As the desired first stage trip point is reached, the solenoid for the large piston is de-energized. This causes the solenoid plunger (Item 6A), with its soft seal (Item 6B), to be returned to its seat (Item 13A) by the spring (Item 6C) in the plunger. Now high pressure fluid entering the piston chamber through the small orifice, in the nose of the piston (Item 9), can no longer drain to downstream and hydraulic pressure equalizes across the piston. Spring force then rapidly moves the piston to its seat.

At this point the valve is in the low flow condition, as the small piston (Item 2) is still open and passing flow. This flow rate will be a function of the position of the small piston. The piston position can be changed by turning the adjusting screw (Item 15) in to reduce low flow and out to increase low flow.

When the second solenoid is de-energized, the small piston will close in the same manner as the large piston.

### CAUTION

#### EMERGENCY CLOSURE

In the event that the valve must be closed quickly, both solenoids can be de-energized simultaneously and both pistons will close together.

## 4.3 Second Stage Flow Rate Setting

The valves are set at the factory for approximately 25 gpm flow rate after the large flow piston closes. The second stage flow rate may be adjusted for any desired flow to provide positive shut-off at a predetermined set point.

Flow Rate may be adjusted as follows:

1. Allow the system to flow and transfer to second stage (low flow).
2. Turn, adjustment screw (Item 15) for desired flow rate so that flow rate is maintained at approximately 25 gpm and so that flow terminates at exactly the predetermined value with virtually no run over.

## **5.0 DESIGN FEATURES**

### **5.1 Design Simplicity**

Simplicity of valve design minimizes the possibility of malfunction, therefore longer valve life can be obtained.

### **5.2 Dynamic Seals**

The seat seal is molded to the piston to provide optimum seat retention and abrasive resistance.

The O.D. seal on the piston is a "U" cup seal which is pressure energized to seal. As installed, there is slight interference between the O.D. of the seal and the cylinder I.D. Then as pressure builds up, the seal is forced outward against the cylinder bore. This type seal is also very resistant to abrasive particles and, because of its inherent flexibility, it resists damage by cutting.

### **5.3 Materials of Construction (Refer to Figure 4-1)**

The main body (Item 1), pistons (Items 2 and 9) and cylinder head assemblies (Items 7 and 13) are made of aluminum alloy. The pistons and body have a special coating of Nituff® to provide maximum wear and corrosion resistance and minimum friction.

The springs (Items 4 and 12), seats (Item 13A), and wetted portion of the solenoids (Item 6) are stainless steel for maximum corrosion resistance. The seals are made of Viton® "A" elastomeric compound for maximum resistance to fuel and fuel additives.

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## 6.0 MAINTENANCE

### 6.1 General

During normal operation, no routine maintenance or adjustment is necessary. If valve failure is suspected, refer to Table 5-1, Troubleshooting Chart.

### 6.2 Disassembly (Refer to Table 7-2, Figure 7-2)

#### **WARNING**

##### **PERSONAL INJURY AND/OR EQUIPMENT DAMAGE**

Disconnect all electrical power and liquid flow to valve before performing any maintenance procedures.

Failure to heed this warning could result in serious injury and/or damage to the equipment.

1. To remove solenoids (Item 6), loosen the 1" nut located under each solenoid housing and unscrew the complete solenoid assembly counter clockwise.

#### **CAUTION**

##### **POSSIBLE EQUIPMENT DAMAGE**

**Take care not to drop the solenoid plunger (Item 6A) and spring (Item 6C) when the solenoid separates from the valve body. (Reference Figure 7-3).**

Improper handling could result in damage to the equipment.

Inspect the plunger seal (Item 6B) and plunger (Item 6A) for wear. Replace as necessary.

2. Remove large cylinder head assembly (Item 13) after removing four cap screws (Item 14).

3. Remove gasket (Item 11) and spring (Item 12).
4. Remove the large piston (Item 9) from the cylinder.
5. Inspect the "U" cup seal (Item 10) for wear or damage and replace as necessary.

**CAUTION****POSSIBLE EQUIPMENT DAMAGE**

**When replacing the "U" cup seals, the seal must be installed on the piston with the open side of the seal facing upward. (Reference Figure 4-1).**

Improper handling could result in damage to the equipment.

6. Inspect the piston seat seal for wear or damage. If replacement of this seal is necessary, the piston (Item 9) and seat seal must be replaced as a unit. The seat seal is molded to and is an integral part of the piston.
7. Remove small cylinder head assembly (Item 7) after removing four screws (Item 5).
8. Remove the gasket (Item 8) and spring (Item 4).
9. The small piston (Item 2) may now be removed from the cylinder. This may be accomplished by pushing up on the nose of the piston which can be reached from the inlet side of the valve.
10. Inspect the U cup seal (Item 3) for wear or damage and replace as necessary.
11. Inspect the piston seat seal for wear or damage. If replacement of seal is necessary, the piston (Item 2) and seat seal must be replaced as a unit. The seat seal is molded to and is an integral part of the piston.
12. Inspect the cylinder walls for scratches or scoring which could allow leakage of product past the pistons and U cup seals or which could damage or cut the seals. Any scratches or scoring should be smoothed by lightly sanding or buffing with very fine emery cloth. Severe scratching or scoring of the cylinder bores may require replacement of the main valve body (Item 1).

**6.3 Reassembly**

1. Reassemble by reversing disassembly procedure. Be careful not to cut or damage seals.
2. When replacing cylinder head assembly (Item 13) be sure spring (Item 12) is properly aligned with counterbore of cylinder head (Refer to Figure 4-1).

Table 6-1. Troubleshooting

<b>Symptom</b>	<b>Check</b>
Valve closes but does not seal	Examine seats and U cup seals on the pistons for damage and replace as required.
Valve does not open	Check solenoids to determine whether or not they operate. Check wiring and/or replace solenoid. Make sure all downstream valves are open.
Valve does not close	Check end of piston to make sure small orifice is open. Check cylinder bore and make sure that contaminant is not jamming pistons. Make sure that pistons move freely in cylinder.
Valve goes from full flow to no flow on de-energizing of primary solenoid.	Check wiring of solenoids. Determine whether solenoid for small piston is functioning. Check movement of small piston.

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**7.0 PARTS LIST**

**7.1 General**

This section contains the necessary parts required to make up the Model V-188 Valve. Recommended spare or replacement parts have been denoted by an asterisk. For items that are not listed, or additional information, consult factory.

When ordering, the following information must be supplied.

- Serial number
- Part number
- Part description
- Quantity required

**TRADEMARKS**

Teflon®	.....	E.I. du Pont de Nemours and Company
Viton®	.....	E.I. du Pont de Nemours and Company
Nituff®	.....	Nimet Industries, Inc.

**NOTICE**

Item numbers reference actual engineering drawings and are not meant to be consecutively numbered.

Table 7-1. Parts List

Item	Description	Part Number	No. Req.	Item	Description	Part Number	No. Req.
1	Valve Body	520701	1	9	Piston	520719	1
2	Piston	520718	1	10*	Seal U Cup	157046	1
3*	Seal U-Cup Small Valve	157045	1	11*	Cylinder Head Gasket	520713	1
4	Spring - Small Valve	520716	1	12	Spring	520717	1
5	10-32 x 7/16 Screw	150533	4	13	Cylinder Head Assembly	520705	1
6	Solenoid	520704	2	14	1/4 - 20 x 5/8 Screw	150726	4
7	Cylinder Head Assembly	520710	1	15	Adjustment Screw	520709	1
8*	Gasket - Small Valve	520714	1	16*	O-Ring	152066	1

\* Recommended Spare Parts

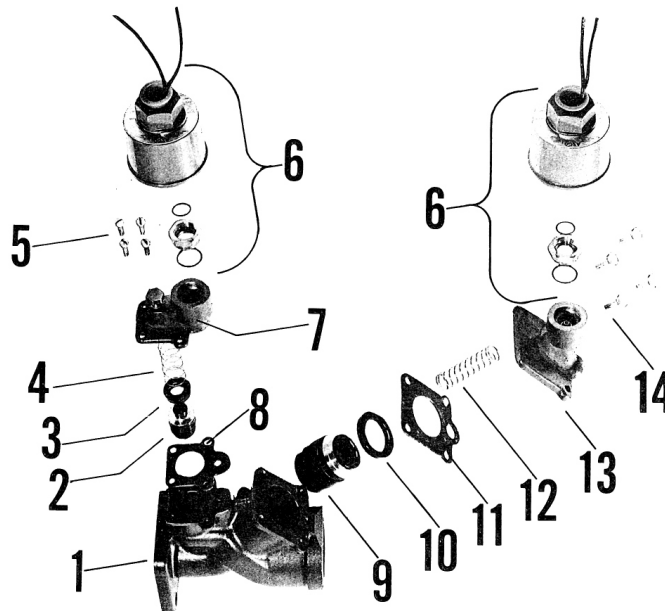


Figure 7-1. Exploded View (Parts List)

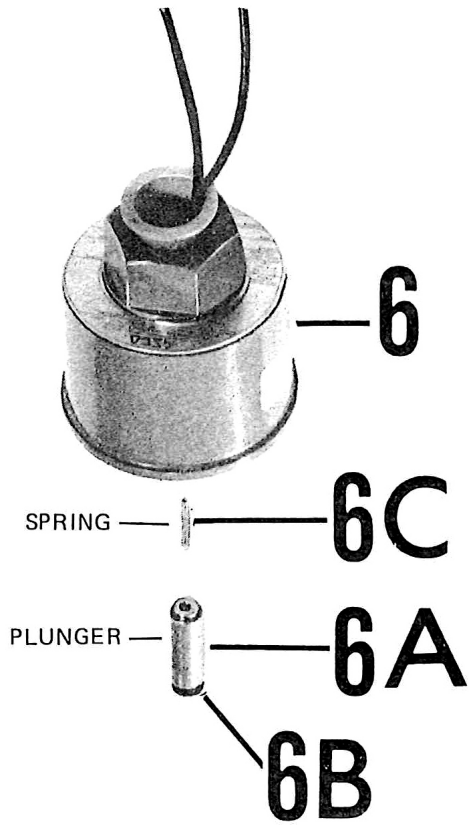


Figure 7-2. Detail Item 6 (Table 7-1)

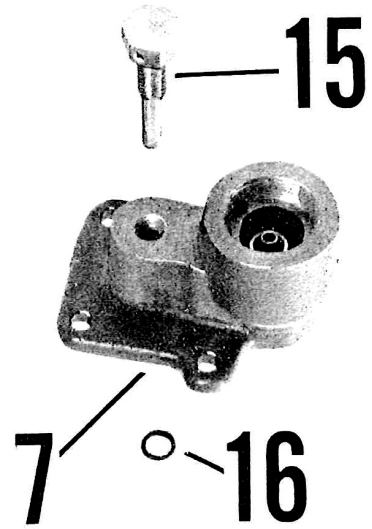


Figure 7-3. Detail Item 7 (Table 7-1)

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**DANIEL MEASUREMENT AND CONTROL, INC.**  
**RETURN POLICY FOR WARRANTY**  
**AND NON-WARRANTY MATERIAL**

Use the following procedure for returning equipment to the Daniel factory in the United States.

**Step 1      Obtaining a RMA Number**

*A Return Material Authorization (RMA) number must be obtained prior to returning any equipment for any reason.*

To obtain a RMA number, call the Customer Service Department at 713-827-5033 between 8:00 a.m. and 5:00 p.m. (Central Standard Time), Monday through Friday, except holidays or email [daniel.support@emersonprocess.com](mailto:daniel.support@emersonprocess.com).

**NOTICE**

**No product returns will be accepted without a RMA number and will be returned at the customer's expense.**

For warranty consideration, the product must be returned to Daniel within twelve (12) months of the date of original shipment or within eighteen (18) months of the date of original shipment of the product to destinations outside the United States. The Purchaser must prepay any shipping charges.

In addition, the Purchaser is responsible for insuring any product shipped for return, and assumes the risk of loss of the product during shipment.

- The following information is required at the time the RMA is issued:
  - Customer name
  - Contact name
  - Billing address
  - Contact Phone # and email address
  - Daniel SO #, PO #, or Invoice #
  - Item(s) to be returned
  - Reason for return
  - End user and final destination address
  - Consignee's complete name, address, contact name and phone number
  
- A RMA number is required for each original order. (Example: Two fittings purchased on two separate orders now being returned require two RMA numbers.)

*For product returns from locations outside the United States, Daniel Customer Service personnel will provide additional shipping requirements.*

## Step 2      **Cleaning and Decontamination**

Prior to shipment, thoroughly clean and decontaminate all equipment removing all foreign substances. This includes all substances used for cleaning the equipment. The cleaning and decontamination requirement applies to any part exposed to process fluids or cleaning substances.

Shipping equipment that has not been decontaminated may be in violation of U.S. Department of Transportation (DOT) regulations. For your reference, the requirements for packaging and labeling hazardous substances are listed in DOT regulations 49 CFR 172, 178, and 179.

If you suspect that a part has been contaminated, the part must be completely drained and flushed to remove contaminants.



**MAY CAUSE DEATH OR SERIOUS INJURY TO PERSONNEL**

**Contents may be under pressure or materials may be hazardous**

Improper handling of pressurized equipment could lead to contact with hazardous materials or contaminated units and parts. Death or serious injury could result. Always follow appropriate handling instructions for accessing pressurized equipment.

### **Decontamination/Cleaning Statement**

A blank Decontamination/Cleaning Statement is provided on the “Returned Material Authorization Repair Form for Used Equipment”.

- A Decontamination/Cleaning Statement is required for each returned part.
- Fully complete each form and include a signature. If the decontamination statement is incomplete, the customer may be charged for decontamination and cleaning.

If the equipment has been exposed to a known hazardous substance with any characteristic that can be identified in the Code of Federal Regulations, 40 CFR 261.20 through 261.24, the chemical abstracts number and hazardous waste number/hazard code must be stated in the space provided on the form.

Two (2) copies of each Decontamination/Cleaning Statement must be provided:

- One (1) copy must be attached to the outside of the package.
- One (1) copy must be included inside the package.

### **Step 3      Material Safety Data Sheets (MSDS)**

Provide a Material Safety Data Sheet (MSDS) with the returned equipment for each substance that has come in contact with the equipment being returned, including substances used for decontamination and cleaning.

*A MSDS sheet is required by law to be available to people exposed to specific hazardous substances*, with one exception: if the equipment has only been exposed to food-grade substances or potable water, or other substances for which an MSDS is not applicable, the Decontamination/Cleaning Statement form alone is acceptable.

Two (2) copies of each MSDS must be provided:

- One (1) copy must be attached to the outside of the package.
- One (1) copy must be provided inside the package.

### **Step 4      Packaging**

#### **Shipping a Device With Possible Contamination**

To meet DOT requirements for identifying hazardous substances, ship only one device per package.

#### **Shipping a Device Without Any Potential Contamination**

Devices being returned may be shipped together in one package, if there is no potential of foreign substance contamination.

## Step 5 Shipping

### Before returning used equipment:

- Mark each package clearly with a RMA number.
- Include a Decontamination/Cleaning Statement inside the package.
- Attach a duplicate Decontamination/Cleaning statement to the outside of the package.
- Include a MSDS for each substance that has come in contact with the equipment inside the package.
- Attach a duplicate MSDS to the outside of the package.

## NOTICE

**No product returns will be accepted without a RMA number and will be returned at the customer's expense.**

For warranty consideration, the product must be returned to Daniel within twelve (12) months of the date of original shipment or within eighteen (18) months of the date of original shipment of the product to destinations outside the United States. The Purchaser must prepay any shipping charges.

### Ship all \* mechanical equipment to the following address:

Daniel Measurement and Control, Inc.  
Attn: Service Dept.  
5650 Brittmoore Rd.  
Houston, TX 77041  
Ref: RMA# \_\_\_\_\_

\*Mechanical equipment includes: Orifice Fittings, Parts, Plates, Seal Rings, Turbine Meters, Control Valves, Provers, Strainers, Meter Tubes, Ultrasonic Meters, Flow Conditioners, etc.

### Ship all \* electronic equipment to the following address:

Daniel Measurement and Control, Inc.  
Attn: Service Dept.  
11100 Brittmoore Park Drive  
Houston, TX 77041  
Ref: RMA# \_\_\_\_\_

\*Electronic equipment includes: Gas Chromatographs, Petrocount Presets, Danload Preset, Ultrasonic Meter Electronics (CPU boards, transducers, etc.), 2403 Totalizer, MRT 97 Indicator, Preamps, Pick Up Coils, Prover Interface Boards, and the following Flow Computer Models: 2230, 2239, 2270, 2460, 2470, S100, 2100, and 3000.

# Daniel Measurement and Control, Inc.

## Returned Material Authorization

### Repair Form for Used Equipment Including Decontamination/Cleaning Statement

1. Return Material Authorization (RMA) Number \_\_\_\_\_
2. Equipment to be returned:  
Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_
3. Reason for return: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

<b>Decontamination/Cleaning Fluids Process</b>					
A. List each substance in which the equipment was exposed. Attach additional documents if necessary.					
Common Name	CAS# if available	Used for Hazardous Waste (20 CFR 261)		EPA Waste Code if used for hazardous waste	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
B. Circle any hazards and/or process fluid types that apply:					
<b>Infectious</b>	<b>Radioactive</b>	<b>Explosive</b>	<b>Pyrophoric</b>	<b>Poison Gas</b>	
Cyanides	Sulfides	Corrosive	Oxidizer	Flammable	Poison
Carcinogen	Peroxide	Reactive-Air	Reactive-Water	Reactive-Other (list)	
Other hazard category (list):					
C. Describe decontamination/cleaning process. Include MSDS description for substances used in decontamination and cleaning processes. Attach additional documents if necessary.					

## Shipping Requirements

**Failure to comply with this procedure will result in the shipment being refused.**

4. Write the RMA number on the shipping package.
5. Inside the package include one copy of this document and all required Material Safety Data Sheets (MSDS)
6. Outside of the package attach one copy of this document and all required Material Safety Data Sheets (MSDS).

**THIS EQUIPMENT, BEING RETURNED "FOR REPAIR," HAS BEEN COMPLETELY DECONTAMINATED AND CLEANED. ALL FOREIGN SUBSTANCES HAVE BEEN DOCUMENTED ABOVE AND MSDS SHEETS ARE ATTACHED.**

By:

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Print name)

Title:

\_\_\_\_\_

Date:

\_\_\_\_\_

Company:

\_\_\_\_\_

Phone:

\_\_\_\_\_

Fax:

\_\_\_\_\_

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The sales and service offices of Daniel Measurement and Control are located throughout the United States and in major countries overseas.  
Please contact Daniel Measurement Services at  
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