



Agilent Technologies

Vacuum Products Division

***IDP7 / IDP10
Exhaust
Silencer Kit***

INSTRUCTION MANUAL

Manual No. X3807-90005
Rev. A
February 2017

Preface

Documentation Conventions

This manual uses the following documentation conventions:

WARNING



Warnings indicate a procedure or practice, which if not followed correctly, could lead to serious injury.

CAUTION



Cautions indicate a procedure or practice, which if not followed, could cause damage to the equipment.

NOTE



Notes contain important information.

Before operating or servicing equipment, read and thoroughly understand all operation/maintenance manuals provided by Agilent. Be aware of the hazards associated with this equipment, know how to recognize potentially hazardous conditions, and how to avoid them. Read carefully and strictly observe all cautions and warnings. The consequences of unskilled, improper, or careless operation of the equipment can be serious.

In addition, consult local, state, and national agencies regarding specific requirements and regulations. Address any safety, operation, and/or maintenance questions to your nearest Agilent office.

IDP7/10 Exhaust Silencer Kit

Agilent's exhaust silencer kit for the IDP7 and IDP10 scroll pumps reduces the total sound pressure level due to exhaust pulsation, mitigates audible noise in the most sensitive frequencies, and collects tip seal dust with a 5-micron filter element.

Figure 2 shows the kit mounted at the exhaust of an IDP7 in the side position.

Table 1 breaks down the kit parts and quantities.

Parts Included

Table 1 - Parts List

QTY	UNIT	PART/MATERIAL DESCRIPTION
0.8	FT	TUBING, 3/4 INCH OD, 1/8 INCH WALL, TYGON, BLACK
4	EA	CLAMP 3/4 INCH OD, BLK NYLON
1	EA	HOSE ADAPTER, NW16, 1/2-5/8 HOSE, ALUM
2	EA	SEAL, CNTR RING, NW16, ALUM, VITON O-RING
2	EA	CLAMP, QUICK, WING NUT, NW10/16 KF, ALUM, PLAIN
1	EA	SILENCER/RESONATOR ASSY
1	EA	EXHAUST FILTER / SILENCER, NW16 (SEE NOTE)
1	EA	ELBOW BARBED 1/4 NPT – 1/2 TUBE, BLK. NYLON
1	EA	FEMALE PIPE ADAPTER NW16 – 1/4 FNPT



Polyester filter element rated 99% efficient at the 5-micron particle size. Replacement recommended after every tip-seal or module change.

P/N: REPLSLRFILTER1



Figure 1 - Exhaust Silencer Kit

Installation



NOTE : To ensure proper operation, and to prevent damage, the kit must be installed and operated only as specified.

1. Connect the pump's NW16 exhaust flange to the NW16 connector by the means of the centering ring and quick clamp provided.



Figure 2 – Exhaust Silencer Kit Installed



***Do not** use this kit if the application requires capture or containment of gases being pumped. Instead, route the pump exhaust to an appropriate collection system.*

Performance

Typical reductions are: 4dB(A) measured at 1 m from the front of the pump, on a horizontal direction and an average of 3.8db(A) from all three directions, under a 2-3 Torr load, and with the gas ballast open. The exhaust silencer kit does not significantly influence the sound pressure when pumping at base pressure.

The kit's silencer/resonator assembly mitigates exhaust pulsation noise in the most sensitive frequencies.



Vacuum Products Division Instructions for returning products

Dear Customer:

Please follow these instructions whenever one of our products needs to be returned.

- 1) Complete the attached Request for Return form and send it to Agilent Technologies (see below), taking particular care to identify all products that have pumped or been exposed to any toxic or hazardous materials.
- 2) After evaluating the information, Agilent Technologies will provide you with a Return Authorization (RA) number via email or fax, as requested.
Note: Depending on the type of return, a Purchase Order may be required at the time the Request for Return is submitted. We will quote any necessary services (evaluation, repair, special cleaning, eg).
- 3) Important steps for the shipment of returning product:
 - x Remove all accessories from the core product (e.g. inlet screens, vent valves).
 - x Prior to shipment, drain any oils or other liquids, purge or flush all gasses, and wipe off any excess residue.
 - x If ordering an Advance Exchange product, please use the packaging from the Advance Exchange to return the defective product.
 - x Seal the product in a plastic bag, and package product carefully to avoid damage in transit. You are responsible for loss damage in transit.
 - x Agilent Technologies is not responsible for returning customer provided packaging or containers.
 - x Clearly label package with RA number. Using the shipping label provided will ensure the proper address and RA number are on the package. Packages shipped to Agilent without a RA clearly written on the outside cannot be accepted and will be returned.
- 4) Return only products for which the RA was issued.
- 5) Product being returned under a RA must be received within 15 business days.
- 6) Ship to the location specified on the printable label, which will be sent, along with the RA number, as soon as we have received all of the required information. Customer is responsible for freight charges on returning product.
- 7) Return shipments must comply with all applicable Shipping Regulations (IATA, DOT, etc.) and carrier requirements.

RETURN THE COMPLETED REQUEST FOR RETURN FORM TO YOUR NEAREST LOCATION:

EUROPE:

Fax: 00390119979330
Fax Free: 00 800 345 345 00
Toll Free: 080023423400
vpt-customer@agilent.com

NORTH AMERICA:

Fax: 17818609252
Toll Free: 8008827426, Option 3
vpl-ra@agilent.com

PACIFIC RIM:

please visit our website for individual office information <http://www.DJLOHQW.com>



Please read important policy information on Page 3 that applies to all returns.

1) CUSTOMER INFORMATION

Company Name:		Contact Name:	
Tel:	Email:	Fax:	
Customer Ship To:		Customer Bill To:	
Europe only: VAT reg. Number:		USA/Canada only: <input type="checkbox"/> Taxable <input type="checkbox"/> Non-taxable	

2) PRODUCT IDENTIFICATION

Product Description	Agilent P/N	Agilent S/N	Original Purchasing Reference

3) TYPE OF RETURN (Choose one from each row and supply Purchase Order if requesting a billable service)

- 3A.** Non-Billable Billable **➔** New PO # (hard copy must be submitted with this form):
- 3B.** Exchange Repair Upgrade Consignment/Demo Calibration Evaluation Return for Credit

4) HEALTH and SAFETY CERTIFICATION

AGILENT TECHNOLOGIES CANNOT ACCEPT ANY PRODUCTS CONTAMINATED WITH BIOLOGICAL OR EXPLOSIVE HAZARDS, RADIOACTIVE MATERIAL, OR MERCURY AT ITS FACILITY.
Call Agilent Technologies to discuss alternatives if this requirement presents a problem.

The equipment listed above (check one):

HAS NOT pumped or been exposed to any toxic or hazardous materials. OR

HAS pumped or been exposed to the following toxic or hazardous materials. If this box is checked, the following information must also be filled out. Checkboxes for all material(s) to which product(s) pumped or was exposed:

Toxic Corrosive Reactive Flammable Explosive Biological Radioactive

List all toxic/hazardous materials. Include product name, chemical name, and chemical symbol or formula:

NOTE: If a product is received at Agilent which is contaminated with a toxic or hazardous material that was not disclosed, the customer will be held responsible for all costs incurred to ensure the safe handling of the product, and is liable for any harm or injury to Agilent employees as well as to any third party occurring as a result of exposure to toxic or hazardous materials present in the product.

Print Name: _____ **Authorized Signature:** **Date:** _____

5) FAILURE INFORMATION:

Failure Mode (REQUIRED FIELD. See next page for suggestions of failure terms):
Detailed Description of Malfunction: (Please provide the error message)
Application (system and model):

I understand and agree to the terms of Section 6, Page 3/3.		
Print Name:	Authorized Signature:	Date:



**Vacuum Products Division
Request for Return Form
(Health and Safety Certification)**

Please use these Failure Mode to describe the concern about the product on Page 2.

TURBO PUMPS and TURBO CONTROLLERS

APPARENT DEFECT/MALFUNCTION	POSITION	PARAMETERS
- Does not start - Does not spin freely - Does not reach full speed - Mechanical Contact - Cooling defective	- Noise - Vibrations - Leak - Overtemperature - Clogging	- Vertical - Horizontal - Upside-down - Other: OPERATING TIME:

ON PUMPS/CONTROLLERS

- Bad feedthrough	- Poor vacuum
- Vacuum leak	- High voltage problem
- Error code on display	- Other

VALVES/COMPONENTS

- Main seal leak	- Bellows leak
- Solenoid failure	- Damaged flange
- Damaged sealing area	- Other

LEAK DETECTORS

- Cannot calibrate	- No zero/high background
- Vacuum system unstable	- Cannot reach test mode
- Failed to start	- Other

INSTRUMENTS

- Gauge tube not working	- Display problem
- Communication failure	- Degass not working
- Error code on display	- Other

SCROLL AND ROTARY VANE PUMPS

- Pump doesn't start	- Noisy pump (describe)
- Doesn't reach vacuum	- Over temperature
- Pump seized	- Other

DIFFUSION PUMPS

- Heater failure	- Electrical problem
- Doesn't reach vacuum	- Cooling coil damage
- Vacuum leak	- Other

Section 6) *ADDITIONAL TERMS*

Please read the terms and conditions below as they apply to all returns and are in addition to the Agilent Technologies Vacuum Product Division – Products and Services Terms of Sale.

- x Customer is responsible for the freight charges for the returning product. Return shipments must comply with all applicable **Shipping Regulations** (IATA, DOT, etc.) and carrier requirements.
- x Customers receiving an Advance Exchange product agree to return the defective, rebuildable part to Agilent Technologies **within 15 business days. Failure to do so, or returning a non-rebuildable part (crashed), will result in an invoice for the non-returned/non-rebuildable part.**
- x Returns for credit toward the purchase of new or refurbished Products are subject to prior Agilent approval and may incur a restocking fee. Please reference the original purchase order number.
- x Units returned for evaluation will be evaluated, and a quote for repair will be issued. If you choose to have the unit repaired, the cost of the evaluation will be deducted from the final repair pricing. A Purchase Order for the final repair price should be issued within 3 weeks of quotation date. Units without a Purchase Order for repair will be returned to the customer, and the evaluation fee will be invoiced.
- x A Special Cleaning fee will apply to all exposed products per Section 4 of this document.
- x If requesting a calibration service, units must be functionally capable of being calibrated.

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