For instructions on how to assemble these systems, please refer to the Hilti North America Youtube page

VC 125
VC 150
VC 300

CONTENTS

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HEPA certification for VC 20, 40 series vacuums ....................................................... 7–16
Supplemental instructions. ....................................................... 17–21
June 23, 2017

Statement on features of Hilti VC 20, 40, 150, and 300 series vacuums:

Regarding OSHA 29 CFR Part 1926 §1153, please note that the Hilti VC 20-U, VC 40-U, VC 40-UE, VC 150-6 X, VC 150-6 XE, VC 150-10 X, VC 150-10 XE, and VC 300-17 X vacuums all meet the following requirements given in Table 1:

- 99% or greater filter efficiency
- Self-cleaning filter mechanism
- Provide the below cubic feet per minute (cfm) of suction
  - VC 20-U and 40-U: 129 cfm
  - VC 150 series: 150 cfm
  - VC 300 series: 300 cfm
- A HEPA filter is available

When used in conjunction with the corresponding Hilti tools and dust removal systems meeting the listed Table 1 requirements, you will have a compliant system as specified in the regulation.

Please contact your local Hilti representative with any additional questions. For additional clarification, please refer to 29 CFR Part 1926 §1153.

Sincerely,

Hilti product team
June 23, 2017

Statement on features of Hilti VC 125 series vacuums:

Regarding OSHA 29 CFR Part 1926 §1153, please note that the Hilti 125-6 and 125-9 vacuums all meet the following requirements given in Table 1:

- 99% or greater filter efficiency
- Manual filter mechanism
- provide 125 cfm
- a HEPA filter is available

When used in conjunction with the corresponding Hilti tools and dust removal systems meeting the listed Table 1 requirements, you will have a compliant system as specified in the regulation.

Please contact your local Hilti representative with any additional questions. For additional clarification, please refer to 29 CFR Part 1926 §1153.

Sincerely,

Hilti product team
**SERVICE WORK ORDER**

**WORK ORDER NO:** 312-146996  
**CUST PO#:** CREDIT CARD

**Bill To:** TX3592  
**SERVICE SCHEDULE DATE:**

<table>
<thead>
<tr>
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<th>TECH</th>
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<tbody>
<tr>
<td>204</td>
<td>611</td>
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**CUSTOMER NOTES / INSTRUCTIONS:**

**Service Location:** TX3592-002  
**WO OPEN DATE:** 06-Jun-17  
**WORKGROUP:**

**SERVICE REQUESTED: TEST AND CERTIFICATION**

**DETAIL OF SERVICES**

<table>
<thead>
<tr>
<th>Item</th>
<th>Asset #</th>
<th>Description of Services</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>ONSITE CERTIFICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TESTING OF 7 NEW VACUUMS FOR COMPLIANCE WITH HEPA <strong>PLEASE NOTE THAT THE DAY RATE APPLIES TO THE TESTING LISTED IN THE LINE ITEMS BELOW</strong></td>
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<td>TEST AND CERTIFICATION - NEW VACUUM ITEM NUMBER: 2167143 DESCRIPTION: VC 300-17X FLOW RATE: 300 CU FT/MIN</td>
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**BILLING TYPE:**

**CUSTOMER SIGNATURE:** ________________________________  
**DATE:**  
**TECH SIGNATURE:** ________________________________  
**DATE:** 16 Jun 2017  
**Page 1 of 2**
Bill To: TX3592

<table>
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<tr>
<td>TEST AND CERTIFICATION - NEW VACUUM</td>
<td>ITEM NUMBER: 2167147</td>
<td>DESCRIPTION: VC 150-10XE</td>
<td>FLOW RATE: 150 CU FT/ MIN</td>
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<td>7</td>
<td>ONSITE CERTIFICATION</td>
<td>TEST AND CERTIFICATION - NEW VACUUM</td>
<td>ITEM NUMBER: 2167148</td>
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<td>TEST AND CERTIFICATION - NEW VACUUM</td>
<td>ITEM NUMBER: 2167149</td>
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</table>

SERVICE WORK ORDER
WORK ORDER NO: 312-146996
CUST PO#: CREDIT CARD

HILTI INC.
3701 ROYAL LANE
SUITE 100
IRVING, TX 75063
972-403-5887
FRANK HIERONYMUS
FRANK.HIERONYMUS@HILTI.COM

CUSTOMER SIGNATURE: 
TECH SIGNATURE: 
DATE: 
DATE: 16 Jan 2017
# SERVICE REPORT

<table>
<thead>
<tr>
<th>Customer:</th>
<th>HILTI INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>3701 ROYAL LANE SUITE 100 IRVING, TEXAS 75063</td>
</tr>
<tr>
<td>Contact:</td>
<td>FRANK HIERONYMUS</td>
</tr>
<tr>
<td>Telephone:</td>
<td>972/403-5867</td>
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</tbody>
</table>

**ENV Services Technician:** JERRY MAXWELL  
**Test Date:** 16-Jun-17  
**Test Frequency:** ONE TIME ONLY  
**Equipment Manufacturer:** CUSTOM  
**Model Number:** VARIOUS SEE WO.  
**Serial Number:** SEE WO.  
**Type:** VACUUM UNITS  
**Location:** WAREHOUSE

---

### SERVICE SUMMARY

<table>
<thead>
<tr>
<th>OVERALL CERTIFICATION</th>
<th>PASS</th>
<th>FAIL</th>
<th>N/A</th>
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</table>

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### COMMENTS AND RECOMMENDATIONS

hepa leak test completed on item numbers 2167143, 2167144, 2167145, 2167146, 2167147, 2167148, and 2167149. All passed.

---

**Customer Signature:** FRANK HIERONYMUS  
**Serviced by:** Jerry Maxwell  
**Date:** 16-Jun-17
HEPA VACUUM TEST REPORT

Prepared for:
HILTI Inc.
7250 North Dallas Parkway
Plano, TX 75024

Models: VC20U, VC40U, VC40U /outlet

Attention:
Frank Hieronymus
918-712-2349

Date(s) Tested:
7/13/15

Field Service Technician(s):
Ken Waterhouse

ENV SERVICES
4758 Research Drive
San Antonio, TX 78240
(210) 690-3368
Fax (210) 690-3646
HEPA LEAK TESTING OF HILTI HEPA VACUUM UNITS
BENCH TESTING FOR AEROSOL PENETRATION

Setup

Each Vacuum is setup with an internal prefilter bag placed in the base of the bucket and a HEPA filter placed below the motor.
Airflow enters the intake and is them passed through the prefilter bag and then is siphoned up thru the HEPA filter and then discharged through lovers on the right an left side of the vacuum housing.

Procedure:
Following guidelines within Reference Standard; IES-RP-CC-0034.1
HEPA and ULPA Filter Leak Tests.
A large bag was placed over the outlet side of the Vacuum unit.
The Intake airflow was measured with a Velocity meter set for CFM Calculation (135 CFM)
A calculated concentration was followed using an aerosol challenge for >10 micrograms per liter of PAC Aerosol.
The Aerosol Photometer was set at a sensitivity of 50 micrograms, and the test proceeded by insertion of aerosol in the intake and sampling the outflow of the air filling the collection bag.
No leakage greater than .005% was detected.

Test Setup showing Aerosol Generator on right HILTI VC20U Vacuum in middle with catch bag attached, and Aerosol Photometer on the left.

[Signature]
[Date: 13Jul15]
Conclusions:
All Models passed the aerosol penetration leak test of no leakage greater than .005% penetration detected.

See Certificates

Test Equipment Used:

Tec Services Inc. Aerosol Photometer
Model # PH-5
Serial # 2027
Calibration Date: 29JUN2015

ATI Model 6B Aerosol Generator
6 Nozzle
S# 26536

Velocity Meter
TSI
Model # 9535
S# T95351514002
CALIBRATION CERTIFICATE

All calibrations are performed by qualified personnel using instrumentation, procedures and methods which guarantee specifications claimed are reliable. When specified, all calibrations are performed in accordance with current ISO/IEC 17025, ANSI/NCSL Z-540-1, MIL-STD-45662A, and ENV/Pro-Lab Quality Manual - Rev 5. Standards used are traceable to The National Institute of Standards and Technology (NIST). Expanded uncertainties are calculated using methods described in the Guide to the Expression of Uncertainty of Measurement (GUM) utilizing a coverage factor of k=2 (95% confidence) and kept on file at Pro-Lab. At a minimum, standards are selected with an uncertainty of 25% or better, where possible. This certificate and/or data shall not be reproduced except in full, without the written permission of Pro-Lab Management.

Standards Used

<table>
<thead>
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<th>Asset #</th>
<th>Description</th>
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<th>Date Due</th>
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<tr>
<td>1064</td>
<td>DUAL CAPACITANCE MANOMETER</td>
<td>ENV/0515-490-5015</td>
<td>5/31/2016</td>
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<tr>
<td>1206</td>
<td>PRESSURE TRANSDUCER</td>
<td>ENV/0515-490-5013</td>
<td>5/31/2016</td>
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<td>286</td>
<td>RTD PROBE</td>
<td>ENV/0034-481-2318</td>
<td>6/30/2016</td>
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</tbody>
</table>

Temperature: 23.0 °C
Humidity: 54.6 % RH
Approved By: Michael Blahut

Date Tested: 11-Jun-2015
Date Due: 30-Jun-2016
Calibrated By: David Andreas

Calibration Technician
E-Signed 11-Jun-2015 8:37 AM

--- A DIVISION OF ENV SERVICES, INC. ---
2880 BERGEY ROAD SUITE K - HATFIELD, PA 19440-1742 - (800) 992-9108 - FAX (215) 822-6622
# CALIBRATION DATA

Note: Calibration results may drift from documented values prior to calibration due date attributable to various factors. Results obtained apply to the UUT only and are reflective of conditions at the time of this test.

<table>
<thead>
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<th>Velocity Description</th>
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<td>FPM</td>
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<table>
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<tr>
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<td>73.5</td>
<td>73.0</td>
<td>74.0 A</td>
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</table>
CALIBRATION CERTIFICATE

All calibrations are performed by qualified personnel using instrumentation, procedures and methods which guarantee specifications claimed are reliable. When specified, all calibrations are performed in accordance with current ISO/IEC 17025, ANSI/NCSL Z-540-1, MIL-STD-45662A, and ENV/Pro-Lab Quality Manual - Rev 5. Standards used are traceable to The National Institute of Standards and Technology (NIST). Expanded uncertainties are calculated using methods described in the Guide to the Expression of Uncertainty of Measurement (GUM) utilizing a coverage factor of K=2 (95% confidence) and kept on file at Pro-Lab. At a minimum, standards are selected with an uncertainty of 25% or better, where possible. This certificate and/or data shall not be reproduced except in full, without the written permission of Pro-Lab Management.

Standards Used

<table>
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<tr>
<th>Asset #</th>
<th>Description</th>
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<td>0152</td>
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<td>52-VEN-2477085</td>
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<tr>
<td>00173</td>
<td>MASS FLO METER</td>
<td>ENV00914-497-191</td>
<td>8/30/2015</td>
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Temperature: 22.0 C
Humidity: 35.0% RH
Approved By: Michael Blahut

Date Tested: 29-Jun-2015
Date Due: 30-Jun-2016
Calibrated By: William Leas, Jr.
Calibration Technician

E-Signed 30-Jun-2015 1:12 PM
**CALIBRATION DATA**

Specifications obtained from: TEC SERVICES MODEL PH-5 PHOTOMETER USER MANUAL.

Note: Calibration results may drift from documented values prior to calibration due date attributable to various factors. Results obtained apply to the UUT only and are reflective of conditions at the time of this test.

### DC VOLTAGES

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<td>5.14</td>
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### SAMPLE FLOW

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### FUNCTIONAL TEST

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<td>PASS</td>
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<tr>
<td>DOWNSTREAM RESPONSE + CLEAR TO ZERO</td>
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</table>
Certificate of Compliance

HILTI VC20U HEPA Vacuum Unit

Hilti, Inc.
7250 North Dallas Parkway
Plano, TX 75024

On this Date: 7/13/2015

Testing conducted in accordance with IES RP-CC-002 & Following guidelines within Reference Standard: IES-RP-CC-0034.1

Conducted by: ENV Services, Inc.
4758 Research Dr.
San Antonio, TX 78240

Administered By: Ken Waterhouse
Certificate of Compliance

HILTI VC40U HEPA Vacuum Unit

Hilti, Inc.
7250 North Dallas Parkway
Plano, TX 75024

On this Date: 7/13/2015

Testing conducted in accordance with IES RP-CC-002 & Following guidelines within Reference Standard; IES-RP-CC-0034.1

Conducted by: ENV Services, Inc.
4758 Research Dr.
San Antonio, TX 78240

Administered By: Ken Waterhouse
Certificate of Compliance

HILTI VC40U/Outlet HEPA Vacuum Unit

Hilti, Inc.
7250 North Dallas Parkway
Plano, TX 75024

On this Date: 7/13/2015

Testing conducted in accordance with IES RP-CC-002 & Following guidelines within Reference Standard; IES-RP-CC-0034.1

Conducted by: ENV Services, Inc.
4758 Research Dr.
San Antonio, TX 78240

Administered By: Ken Waterhouse
VACUUM CLEANER

VC 125 / 150 / 300 OSHA

Hilti developed a vacuum cleaner system with a filter cleaning mechanism and a >99% filter efficiency, compliant with many of the OSHA 1926.1153, Table 1 specified controls.

Set-up

1. Put a filter into the filter compartment. Decide which filter depending on your applications. See filter section for further information.
2. Put filter bag into the tank. Decide which filter bag depending on your applications. See filter bag section for further information.
3. Put hose into head and attach it to the adaptor of the tool. See tool manual for further information on correct adaptor.
4. Plug vacuum cleaner in socket.
5. Start vacuum cleaner by turning control switch on. Verify proper operation of vacuum cleaner.
   • head on correct and sealed
   • no kinks/breaks/plugs in hose
   • check for normal suction at hose end
   • nothing blocking exhaust port
   • For VC 20/40/150/300, verify the automatic filter cleaning mechanism is turned on, and operating (audible thumping every ~15 seconds).
6. Start running the tool only when vacuum cleaner is on.
7. Turn vacuum cleaner off after tool is turned off.

Cleaning and maintenance

1. For VC 125, push manual filter cleaning button every 3 to 5 minutes depending on application, and whenever there is a noticeable change in suction or dust collection.
2. Filter and filter bag needs to be cleaned and exchanged regularly. See filter and filter bag section for further information.
UNIVERSAL FILTER-BAGS / PLASTIC BAGS

Plastic Bag

• For dry and wet applications
• Will not increase lifetime of filter, no pre-filtering

Universal Bag

• For dry applications
• Virtually dustless recycling / emptying
• Pre-filter, will increase lifetime of filter

How to put bag in vacuum

1. Remove head from tank
2. Put bag into the tank
3. Check that holes are within the vacuum cleaner when installed and that the plastic bag doesn’t overlap clamp area
4. Put head back on tank and close clamps properly

1. Remove head from tank
2. Put bag into the tank
3. Connect flange of filter bag to the adapter
4. Put head back on tank and close clamps

Disposal guidelines

• Recycle bag when it is full
• Tie off or seal paper/fleece bags. Twist plastic bags. Roll bucket to nearest sealed receptacle and transfer bag to garbage.
• To be recycled normally (dispose of bag according to local regulations)

• Close cap when bag is full or needs to be recycled
• Dispose of bag according to local regulations.
DO’S AND DON’TS WITH UNIVERSAL FILTER-BAGS / PLASTIC BAGS

**Plastic Bag**

- Dispose of bag when it is full
- Use filter bags for all dry applications
  - Increases lifetime of your tool
  - Increase lifetime of your filter
- Mandatory for all wood applications
- Connect flange of filter bag properly into adapter
- Fill plastic bag to completely full, it can rip apart
- Overlap the clamp area with the plastic bag
- Shake full filter-bag
  - Dust can exit
  - Bag can rip apart
- Use bag for wet applications
DO’S AND DON’TS WITH FILTERS

Do’s

• Clean filter with automatic filter cleaning (close hose for a 3-5 cycles)
• Power cleaning: Remove hose, close inlet for 3-5 automatic filter cleaning cycles
• Use performance filters (PTFE) in order to have a longer lifetime of your tool, longer lifetime of the filter and less blockage of the filter
• Filter sealing needs to be properly installed
• During filter change, clean up filter frame and sealing area
• Check filter condition before starting an application

Don’ts

• Mix dry and wet applications. Filter used for wet applications needs to be exchanged or dried before using it for dry applications
• Manually cleaning the filter, it will be damaged -> a damaged or missing filter can lead to a broken turbine since dust can enter (reduces lifetime of vacuum cleaner)
  - Banging against the wall
  - Cleaning with high-pressured air
  - Use water jet / air pressure jet to clean the filter
  - Use sharp things e.g. wrench etc. to clean the filter
• Use vacuum cleaner without a filter
### FILTER CLEANING AND EXCHANGE

<table>
<thead>
<tr>
<th>Filter needs to be cleaned when:</th>
<th>Filter needs to be exchanged when:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Feeling of less suction power</td>
<td></td>
</tr>
<tr>
<td>– Clean filter with automatic filter cleaning</td>
<td></td>
</tr>
<tr>
<td>• Dust is coming out of the vacuum cleaner. Indication that filter is broken or blocked</td>
<td></td>
</tr>
<tr>
<td>• Visual check shows that filter needs to be cleaned</td>
<td></td>
</tr>
<tr>
<td>• Dust is coming out of the vacuum cleaner. Indication that filter is broken or blocked</td>
<td></td>
</tr>
<tr>
<td>• Even after cleaning the filter, suction power is insufficient</td>
<td></td>
</tr>
<tr>
<td>• Visual check shows that filter needs to be exchanged due to a high volume of dust near or inside the filter</td>
<td></td>
</tr>
</tbody>
</table>