

|||| HENNIG®

INSTALLATION & USER GUIDE

MISTFLOW 400



MISTFLOW 400

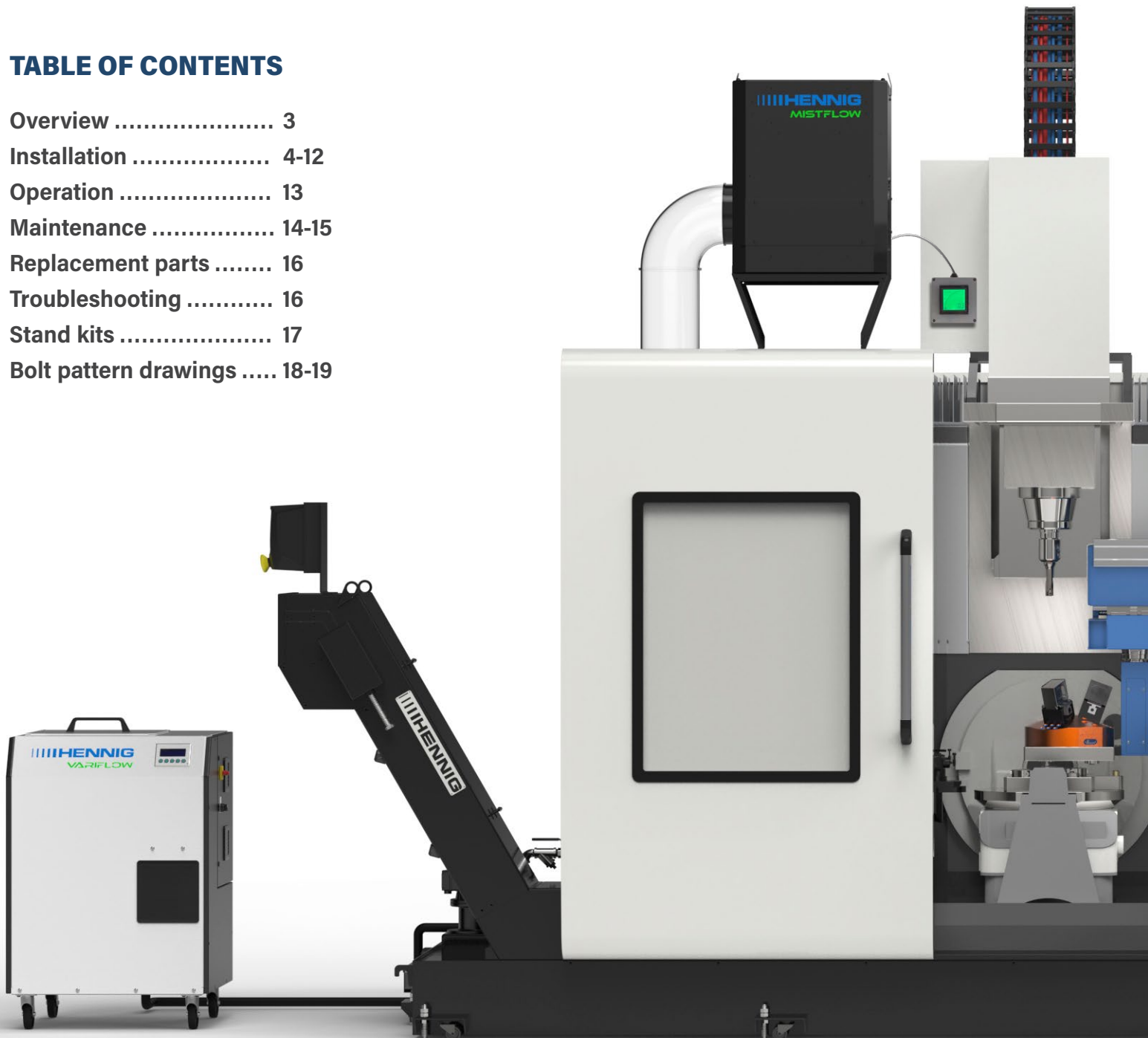
INSTALLATION & MAINTENANCE

Thank you for purchasing your Hennig MistFlow mist collector. The purpose of this manual is to give information about the installation, operation, and maintenance of your system. This information should be shared with operators and maintenance personnel. For assistance in new applications or questions regarding your system, contact us at: 815-636-9900 or info@hennig-inc.com.

Your new Hennig system undergoes 100% end-of-line testing and inspection to verify proper function, prior to packing and shipment.

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MISTFLOW 400 SYSTEM OVERVIEW

SPECIFICATIONS		
Size without stand (l, w, h)		22.5" x 17" x 24.5"
CFM		400
Suction hose diameter		6"
Power		115 or 230 VAC, Single Phase
Full load amps (FLA)	120V	2.8A
	230V	1.9A
Power options		Direct plug-in
		Wired to a switch
		Wired to machine
Filtration stages	1	Washable filter (baffle)
	2	Washable filter (mesh)
	3	HEPA filter



WHAT'S INCLUDED IN THE KIT?

MistFlow 400

- Includes pre-wired filter monitor

Mounting Stand Kit

- All stand options include the mounting hardware (see page 17 for hardware breakdown for each stand)

6" Hose Kit*

- Suction hose, 6" wire reinforced hose (x1)
- Drain hose, 5/8" ID, 10LF (x1)
- Hose flanges (x2)
- Mesh chip deflector ring (x1)
- 6" Bridge hose clamps (x2)
- Hose clamp .5" - 1.25" (x1)
- Hose barb 1/2"NPT to 5/8" hose (x1)
- M6x12mm BHCS (x6)
- M6x20mm BHCS (x8)
- M6 Lock washer (x14)
- M6 Hex nut (x8)
- M6 Sealing washer (x8)

Miscellaneous

- Silicone for sealing hose flanges/cover plate (x1)

**MistFlow systems ordered with a side mount stand do not use the 6" hose kit.*

INSTALLATION

WARNING: Do not install the mist collector while the machine is running. Follow Lock-Out Tag-Out procedures prior to and until installation is complete.

Regardless of your mounting type, these are the general stages of install:

- 1.1 Prepping the machine tool
- 1.2 Prepping the MistFlow
- 1.3 Mounting the MistFlow to the stand
- 1.4 Mounting the MistFlow/stand
- 1.5 Mounting the filter monitor
- 1.6 Connecting the hoses
- 1.7 Connecting run signals
- 1.8 Connecting power

1.1 PREPPING THE MACHINE TOOL

CAUTION: Make sure to avoid any wires or components that could affect the machine's operation.

1.1.1 Cut a hole in the machine tool enclosure for the suction hose

Some machine tools have a dedicated spot for a mist collector hose, typically a perforated circle ~4-8". If so, remove the cutout. If you're not using a designated hose location, then you'll need to cut your own hole. Find a suitable location on the machine tool enclosure and cut a hole the same size as the suction hose that came with your MistFlow. Deburr any rough edges.

1.1.2 Drill mounting holes for the hose flange/chip guard

Mark the hose flange/chip guard mounting bolt pattern on the machine tool and drill 1/4" (7mm) clearance holes to allow proper bolt fit without thread damage. Deburr any rough edges.

See Fig. 21 on page 18 for hose flange bolt pattern.

1.1.3 Attach hose flange and chip guard (except for side mounted MistFlow)

Apply supplied silicone to the hose flange and the chip guard and secure with supplied hardware.

Note: The chip guard must be installed on the inside of the machine enclosure, with the mesh screen facing the enclosure wall.

- ❶ M6x20mm Bolt
- ❷ Sealing washers
- ❸ Hose flange
- ❹ Machine tool enclosure
- ❺ Chip guard
- ❻ Standard washer
- ❼ Locking washer
- ❽ Nut

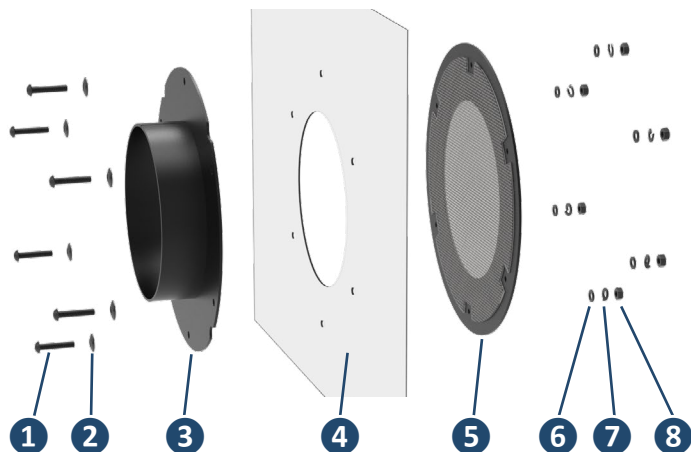


Fig. 1: Installing the hose flange on the machine tool

INSTALLATION

1.1.4 Drill mounting holes for the MistFlow stand

If you're mounting your MistFlow on the machine tool (either on top or the side), mark the mounting hole pattern and drill holes in the machine tool enclosure.

See Fig. 22 (universal mount) on page 18 or Fig. 24 (side mount) on page 19 for hole pattern.

If mounting on the floor, mark the mounting hole pattern (reference drawing on page 18) and add anchors to the floor. *Note: Hennig does not supply anchor bolts and nuts for the floor mount.*

See Fig. 23 (floor mount) on page 18 for bolt size and pattern.

1.2 PREPPING THE HENNIG MISTFLOW

1.2.1 Attach hose flange to Hennig MistFlow

Determine which side of the Hennig MistFlow to attach the suction hose. Apply supplied silicone to the flange and secure to the MistFlow with supplied M6x12mm bolts.

1.2.2 Attach cover plate to Hennig MistFlow

Apply silicone to the cover plate and attach to the Hennig MistFlow (opposite side of the suction hose) with supplied M6x12mm bolts.

- ❶ Hose flange
- ❷ Cover plate



*Fig. 2: Installing the hose flange and cover plate on the MistFlow
(depending on your application, the hose flange and cover plate could switch sides)*

INSTALLATION

1.3 MOUNTING THE HENNIG MISTFLOW TO THE STAND

The MistFlow has a variety of mounting stand options. Regardless of the stand you have, securing the MistFlow to the stand is the same for all options.

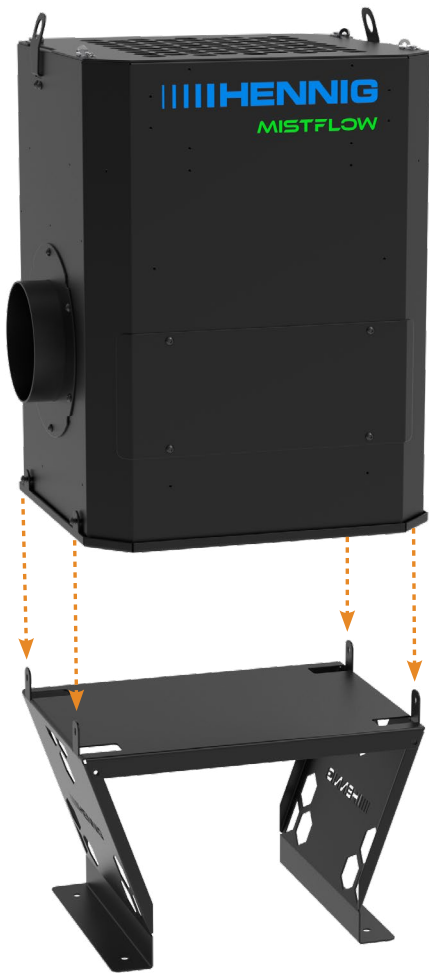
- Universal mount
- Side mount
- Floor mount
- Hennig High-Pressure Coolant System mount (VariFlow, UltraFlow, or EcoFlow)

1.3.1 Place the Hennig MistFlow to the stand

Place the Hennig MistFlow on the supplied stand, making sure the mounting tabs are lined up with each other.

1.3.2 Bolt the Hennig MistFlow to the stand

Using the supplied M6x20mm bolts, secure the MistFlow to the stand.



*Fig. 3: Placing MistFlow on stand
(shown with universal stand)*



*Fig. 4: Securing MistFlow to stand
(shown with universal stand)*

INSTALLATION

1.4 MOUNTING THE MISTFLOW/STAND

1.4.1 Mounting on top of the machine tool

If mounting holes haven't been drilled into the enclosure yet, do so now. Reference Fig. 22 on page 18 for the hole pattern.

Place the MistFlow/stand in its final mounting location and secure using the supplied M6x20mm bolts, washers, lock washers, and nuts.



Fig. 5: Mounting on top of machine tool

1.4.2 Mounting on the floor

WARNING: The floor-stand must be anchored to the floor. Failure to properly anchor the floor-stand may lead to injury and/or damage to the mist collector.

If anchor bolts haven't been installed on the floor yet, do so now. Reference Fig. 23 on page 18 for the hole pattern. Hennig does not supply anchor bolts and nuts for the floor mount.

- 1.4.2.1 Assemble the floor stand sections using the supplied hardware.

Note: 2' floor stand extensions are available. Part # MC1467.

- 1.4.2.2 Place the MistFlow/stand in its final mounting location and secure to the anchors.

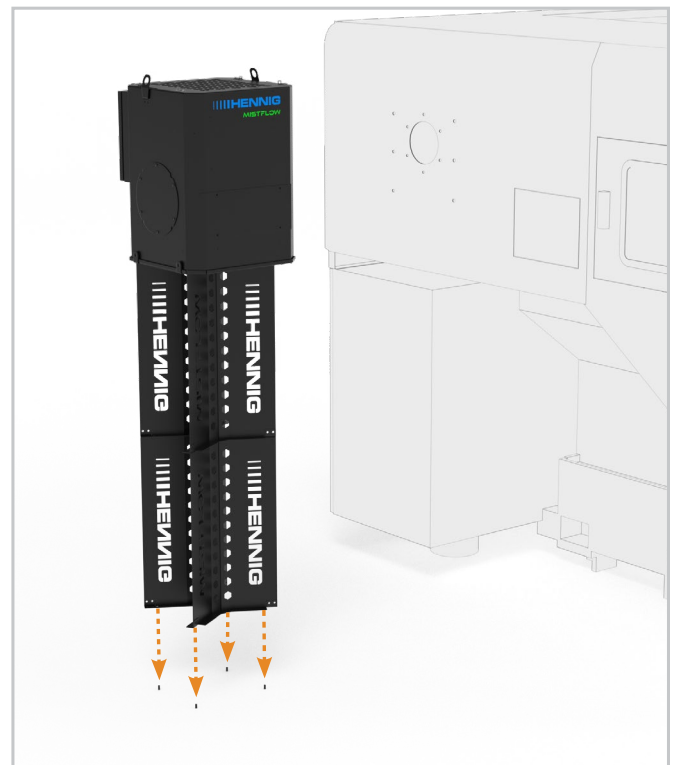


Fig. 6: Mounting to floor

INSTALLATION

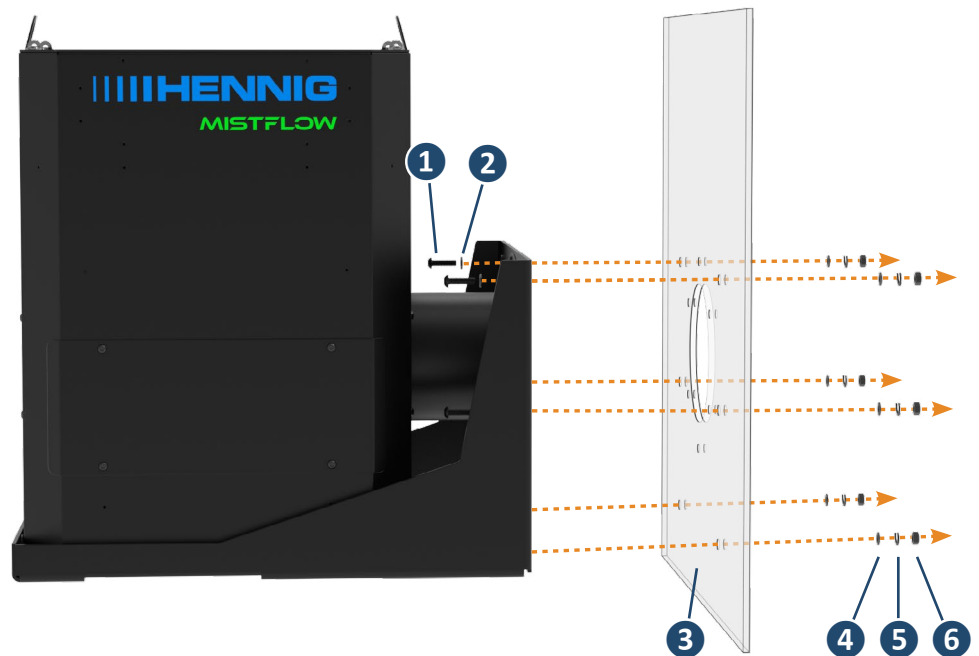
1.4.2 Mounting on side of the machine tool

If mounting holes haven't been drilled into the enclosure yet, do so now. Reference Fig. 24 on page 19 for the mounting and hose flange hole patterns.

- 1.4.2.1 Align the MistFlow/stand with the mounting holes on the machine tool enclosure and secure using the supplied hardware.
- 1.4.2.2 Align the chip guard inside the machine tool enclosure (with the mesh screen facing the enclosure wall) and secure with supplied hardware.

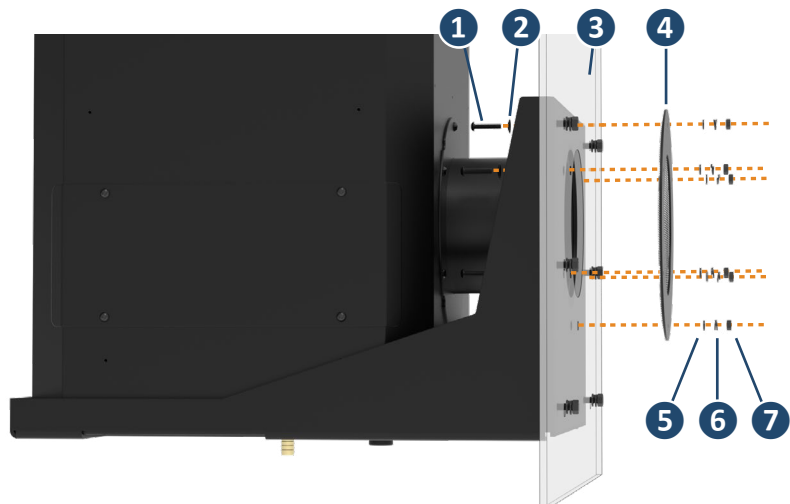
- ❶ M8x30mm bolt (x6)
- ❷ Sealing washer
- ❸ Machine tool enclosure
- ❹ Flat washer
- ❺ Locking washer
- ❻ Nut

Fig. 7: Securing side mount to the machine tool



- ❶ M6x30mm bolt (x6)
- ❷ Sealing washers
- ❸ Machine tool enclosure
- ❹ Chip guard
- ❺ Flat washer
- ❻ Locking washer
- ❼ Nut

Fig. 8: Securing chip guard to the machine tool



INSTALLATION

1.4.3 Mounting to a Hennig high-pressure coolant system

While the mounting designs vary depending on the high-pressure system you have, the process is the same for all high-pressure system mounting.

Remove the factory-installed lift eye bolts from the high-pressure system and secure the MistFlow with the supplied 3/8-16x1" bolts and 3/8" lock washers.



Fig. 9: VariFlow Mount



Fig. 10: UltraFlow Mount



Fig. 11: EcoFlow Mount

INSTALLATION

1.5 MOUNTING THE FILTER RESTRICTION MONITOR

The filter restriction monitor is pre-wired and comes equipped with a magnetic mount.

1.5.1 Choose your mounting location

Determine the best location for the filter restriction monitor (ideal location is near the operator).

1.5.2 Mount the filter monitor

Route the filter restriction monitor to its mounting location and attach it using the supplied magnetic mount.

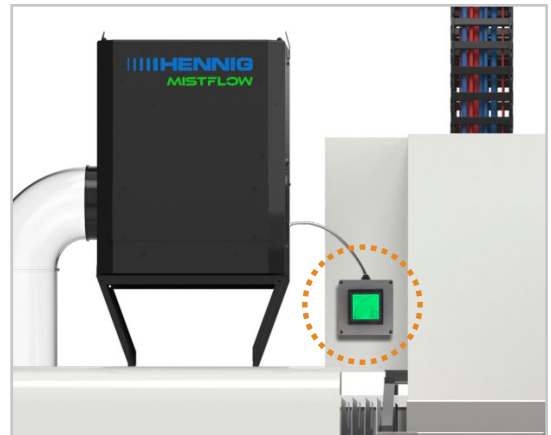


Fig 13: Filter monitor mounted on machine tool

1.6 CONNECTING THE HOSES

The MistFlow comes with two hoses, the suction hose (6" wire reinforced) and the drain hose (5/8" ID).

1.6.1 Connecting the suction hose

Note: If you're using a side mount, skip ahead to the next step (side mount installations connect directly to the machine enclosure and do not use a suction hose).

1.6.1.1 Cut hose length to suit your application and attach to the hose flanges.

CAUTION: Excessive length can cause poor performance and coolant pooling issues in the hose. Route the hose to avoid low spots where coolant can pool. The hose may slope toward or away from the MistFlow depending on mounting location, but it must not have dips that allow coolant to collect.

1.6.1.2 Attach the suction hose to the hose flange on the MistFlow and on the machine tool enclosure, then secure with the supplied worm clamps.

1.6.2 Connecting the drain hose

The drain hose can drain into the machine's coolant tank or a separate bucket. Before installing the drain hose, determine which one you want to use.

1.6.2.1 Connect drain hose to the bottom of the MistFlow.

See Fig. 12 for drain hose nozzle location.

1.6.2.2 Route the drain hose to the coolant tank or drain bucket.

Note: If using a drain bucket, create a 6-inch vertical trap/loop (similar to a plumbing P-trap) before the hose enters the bucket to maintain proper suction. If using the coolant tank, ensure the end of the drain hose remains below the coolant level to maintain proper suction.

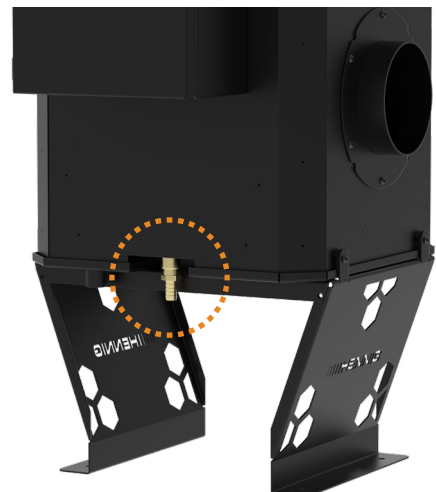


Fig. 12: Drain hose nozzle on back of MistFlow

INSTALLATION

CAUTION: Electrical installation should be performed by qualified personnel.

See Fig. 14 (120V) or Fig. 15 (230V) for signal wire and power wire diagram.

1.7 CONNECTING THE SIGNAL WIRES

There are three options for connecting the signal wires to the MistFlow:

- Auto (automatically runs when the power is connected)
- External switch (runs when manually switched on)
- Machine M-CODE (runs via the machine's control panel, comes with optional power integration kit)

1.7.1 Auto run

Connect the signal wires (24VDC supply, 1390 run signal) to each other.

1.7.2 External switch

Connect the signal wires (24VDC supply, 1390 run signal) to a switch (not supplied).

1.7.3 Machine M-CODE

- 1.7.3.1 Install relay in the machine's electrical cabinet.
- 1.7.3.2 Feed signal wires to the machine's electrical box.
- 1.7.3.3 Connect signal wires (24VDC supply, 1390 run signal) to terminals 14 and 11 at the bottom of the relay.
- 1.7.3.4 A1 and A2 are the M-CODE signals from the machine.

1.8 CONNECTING POWER

There are two ways to power your MistFlow:

- Plug-in (Single phase, 115V or 230V outlet)
- Powered by the machine tool (connects to the machine tool's electrical cabinet)

CAUTION: *If you used the auto-run option for the run signal, then the MistFlow will start running as soon as power is supplied.*

1.8.1 Powered via plug-in

Route the power cord to a suitable power outlet (Single phase, 115V or 230V depending on your MistFlow) and plug it in.

1.8.2 Powered by the machine tool

- 1.8.2.1 Feed the power wires to the electrical cabinet
- 1.8.2.2 Mount the supplied breaker to an available slot in the electrical box in accordance with local electrical codes
- 1.8.2.3 Connect the MistFlow power wires to the breaker
- 1.8.2.4 Supply power to the breaker

INSTALLATION

1.9 POWER AND RUN SIGNAL WIRING DIAGRAMS

All wires are labeled on the MistFlow harness.

120V

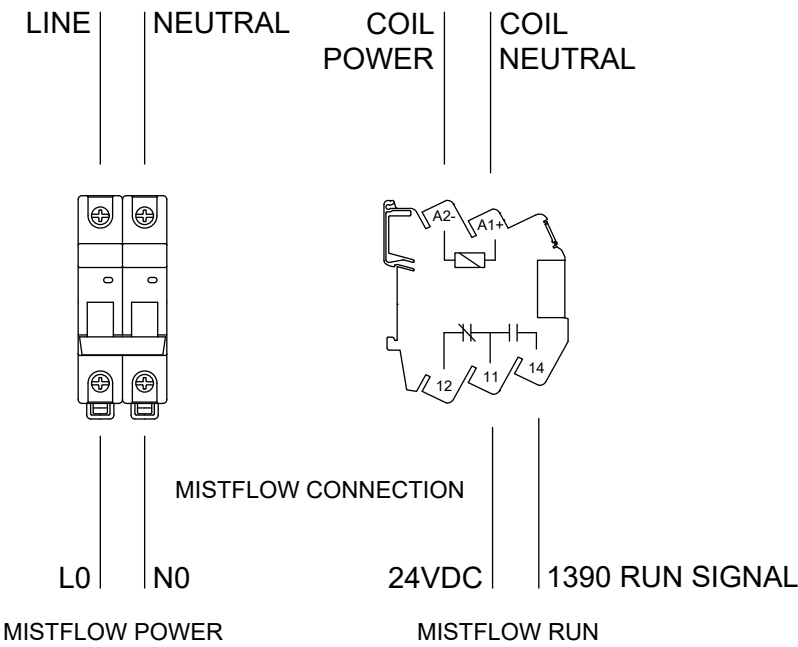


Fig. 14: 120V Power and run signal wiring

230V

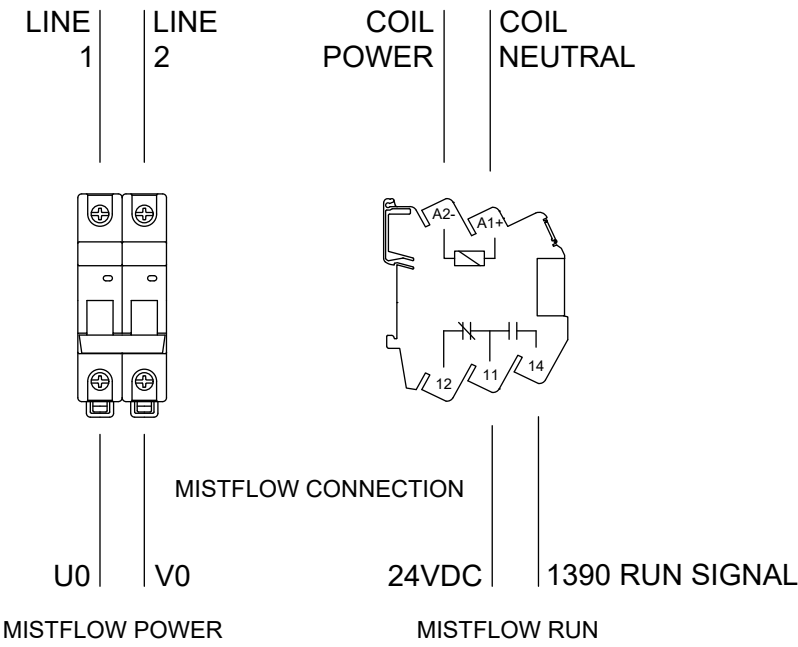


Fig. 15: 230V Power and run signal wiring

OPERATION

2.1 OPERATING THE MISTFLOW

Operating the MistFlow depends on which option you used to connect the run signal

2.1.1 Auto run

Typically powered via plug-in

Plug in the MistFlow to run, and unplug to stop running.

2.1.2 External switch

Turn the switch on to run the MistFlow, and turn it off to stop running.

2.1.3 Machine M-CODE

Use the machine's control panel to start/stop the MistFlow.

2.2 UNDERSTANDING THE FEATURES

2.2.1 MistFlow status lights

The MistFlow logo will change colors depending on the system status:

- Blue: Power on - MistFlow idle
- Green: Power on - MistFlow running
- Red: Power on - thermal overload trip

2.2.2 Filter restriction monitor

The filter restriction monitor detects the degree of blockage (airflow restriction) specifically at the top (stage 3) filter element. It is not a direct gauge of remaining lifespan. Although the monitor measures restriction at the HEPA stage, upstream inlet restrictions can affect the overall reading.

- Green screen (Under 50%): Filters are working, no service required.
- Flashing red screen (50-74%): Filters need service or replacement.
- Solid red screen (75%+): Filters are extremely dirty/blocked, clean or replace immediately.
Reaching 75% does not indicate that 25% of the filter's total service life remains—the restriction often increases rapidly in the final stages, so actual remaining capacity may deplete faster than expected.

CAUTION: A sudden drop in filter monitor reading without service action indicates an airflow restriction upstream of the HEPA filter and must be corrected before continued operation.

Replace the filter when the indicator shows 75% blockage. Running the MistFlow past 80% can cause motor damage and void the warranty.

The filter restriction monitor is a diagnostic aid and does not replace routine inspection and maintenance. Damage resulting from continued operation above recommended restriction levels is not covered under warranty.

MAINTENANCE

To maintain proper functioning of the MistFlow, adhere to the following maintenance procedures:

PROCEDURE	SCHEDULE	HOW TO
Empty drain bucket	If using a drain bucket, monitor the bucket and empty when needed	Section 3.1
Clean washable filters	Every 3-6 months, depending on usage	Section 3.2
Replace HEPA filter	Replace at or before 75% restriction	Section 3.3

3.1 EMPTYING THE DRAIN BUCKET

When the bucket begins to fill, empty the coolant.

Note: Does not apply if your drain hose goes to the coolant tank.

3.2 CLEAN THE WASHABLE FILTERS

CAUTION: Failing to clean the washable filters can affect the accuracy of the filter monitor by restricting the inlet to the fan.

Stage 1 (bottom): Baffle filter

Stage 2 (top): Mesh filter

3.2.1 Remove the cover plate on the front MistFlow

3.2.2 Remove filters, clean, and reinsert

3.2.2.1 Remove the filters by pulling them out of the MistFlow enclosure.

3.2.2.2 Wash the filters by spraying with water or applying degreaser. Rinse until filters are clean.
If filters are damaged or are too dirty to properly clean, then replace with new filters.

3.2.2.3 Reinstall Stage 1 filter (baffle) in the bottom position and Stage 2 filter (mesh) in the top position.

3.2.3 Reinstall the cover plate on the MistFlow

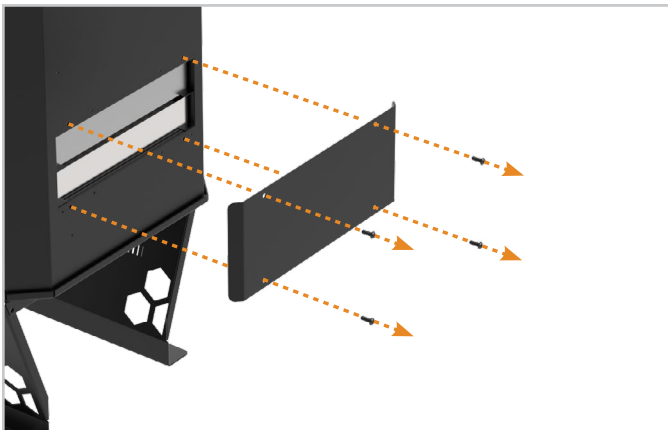


Fig. 16: Removing cover plate for stage 1 & 2 filters

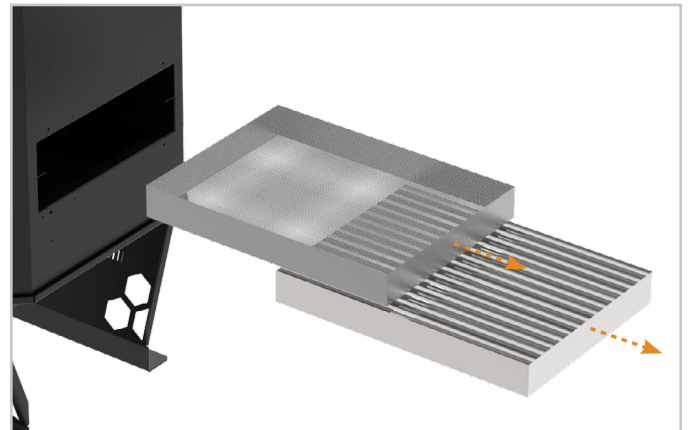


Fig. 17: Stage 1 & 2 filters removal

MAINTENANCE

3.3 REPLACE THE HEPA FILTER

CAUTION: When the filter monitor reaches 75% and turns solid red, it's time to replace the HEPA filter.

3.3.1 Remove the top cover on the MistFlow

Unlock the slide latches on top of the MistFlow and lift the cover off the MistFlow.

3.3.2 Remove the HEPA filter and replace

Remove the filter by pulling it out of the MistFlow. Reinsert the new filter, making sure that the arrow on the filter is pointing up.

3.3.3 Reinstall the cover on the MistFlow

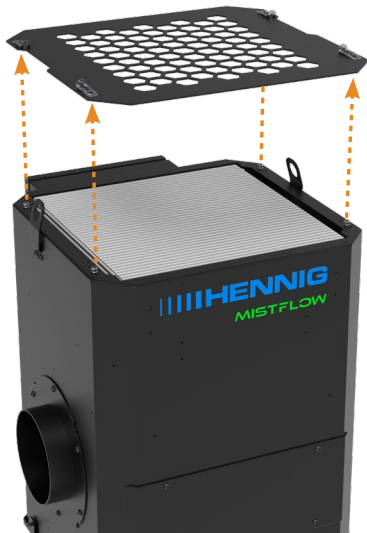


Fig. 18: Stage 3 filter (HEPA) cover plate



Fig. 19: Stage 3 filter (HEPA) removal

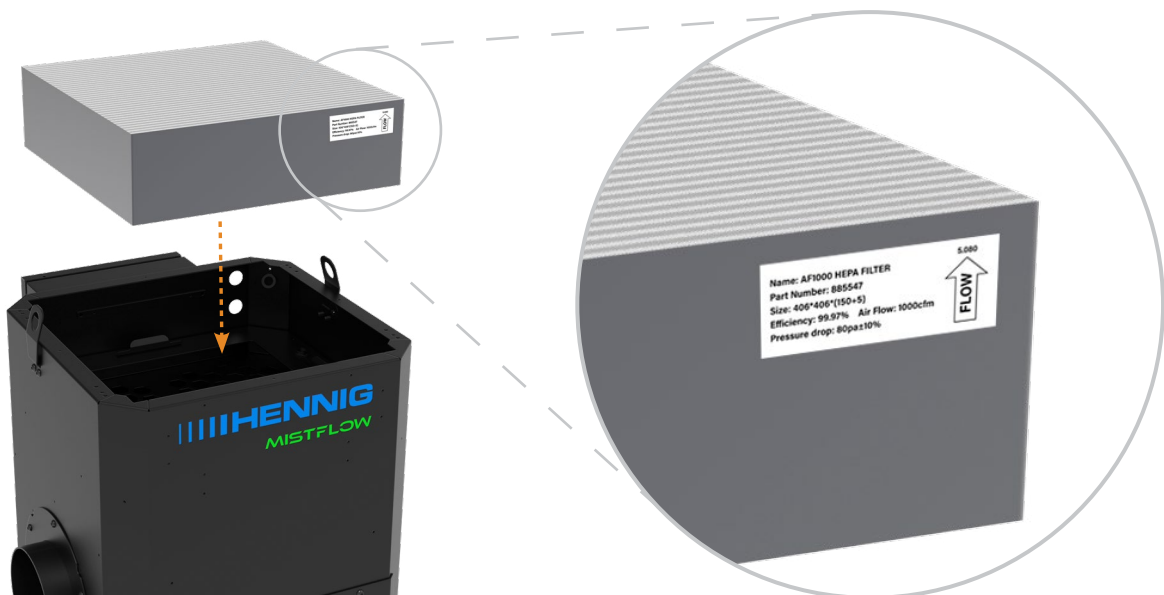


Fig. 20: HEPA filter installation orientation

REPLACEMENT PARTS

PART #	DESCRIPTION
885558	Filter (stage 1, baffle)
885559	Filter (stage 2, mesh)
885560	Filter (stage 3, HEPA)
881443	Fan motor (230V)
881442	Fan motor (115V)

TROUBLESHOOTING

Symptom	Potential Causes	Solution
Filter monitor reading drops without making changes to the system	- Blocked hose - Restricted inlet - Dirty stage 1 and 2 filters	- Clear the block - Check/clean the chip guard - Remove and wash filters
Filter monitor screen is flashing red or is solid red	- Stage 1 and/or Stage 2 filters are dirty - HEPA filter blocked/severe restriction	Check filters and clean/replace as necessary.
MistFlow logo is red	Thermal overload trip	- Check filters for restriction and clean or replace - Check the motor amps while system is running, call a Hennig service technician if amps are out of overload range (see table below)

FULL LOAD AMPS

Voltage	Full Load Amps (FLA)
120V	2.8A
230V	1.9A

MOUNTING STAND KITS

HARDWARE INCLUDED WITH EACH STAND KIT

Universal Stand

- Stand (x1)
- M6x20mm BHCS (x8)
- M6 Flat washer (x8)
- M6 Lock washer (x8)
- M6 Hex nut (x4)
- M6 Sealing washer (x4)

VariFlow Stand

- Stand (x1)
- M6x20mm BHCS (x4)
- M6 Flat washer (x4)
- M6 Lock washer (x4)
- 3/8-16x1" SHCS (x2)
- 3/8 Lock washer (x2)

Floor Stand

Does not include anchor bolts or nuts

- Floor Stand Top (x1)
- Floor Stand Section Joiner (x2)
- Floor Stand Section Half (x4)
- M6x20mm BHCS (x4)
- M6x16mm BHCS (x34)
- M6x12mm FHCS (x8)
- M6 Flat Washer (x46)
- M6 Lock washer (x46)
- M6 Hex nut (x42)

UltraFlow Stand

- Stand (x1)
- M6x20mm BHCS (x4)
- M6 Flat washer (x4)
- M6 Lock washer (x4)
- 3/8-16x1" SHCS (x4)
- 3/8 Lock washer (x4)

Side-mounted Stand

- Side Mount (x1)
- Flange, extended (x1)
- Drain hose, 5/8" ID, 10LF (x1)
- Hose clamp .5"- 1.25" (x1)
- Hose Barb 1/2"NPT to 5/8" hose (x1)
- M6x12mm BHCS (x6)
- M6x20mm BHCS (x2)
- M6x30mm SHCS (x6)
- M6 Flat washer (x8)
- M6 Lock washer (x14)
- M6 Sealing washer (x6)
- M6 Hex nuts (x6)
- M8x30mm SHCS (x6)
- M8 Flat washer (x6)
- M8 Lock washer (x6)
- M8 Sealing washer (x6)
- M8 Hex nut (x6)

EcoFlow Stand

- Stand (x1)
- M6x20mm BHCS (x4)
- M6 Flat washer (x4)
- M6 Lock washer (x4)
- 3/8-16x1" SHCS (x2)
- 3/8 Lock washer (x2)

BOLT PATTERNS

All hole diameters shown are recommended clearance hole sizes.

HOSE FLANGE

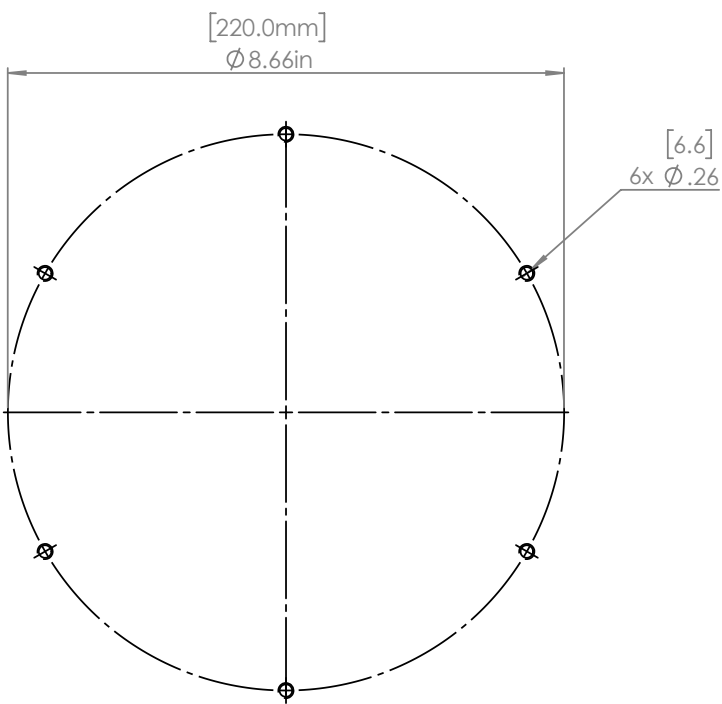


Fig 21: Hose flange bolt pattern

UNIVERSAL MOUNT

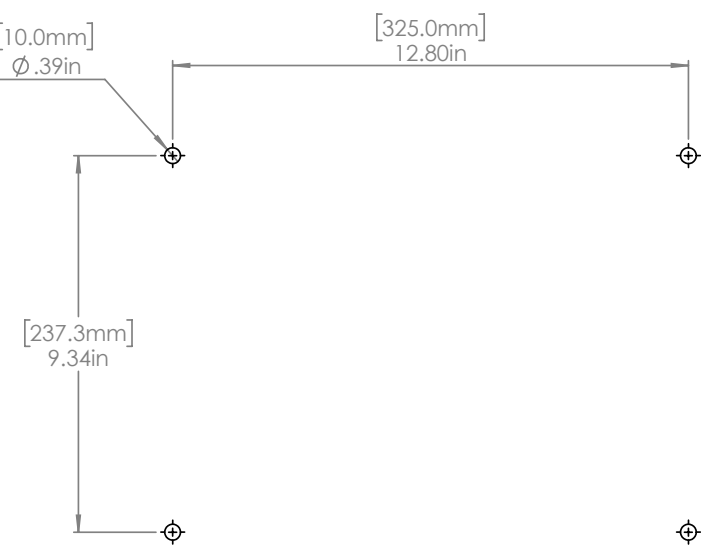


Fig 22: Universal mount bolt pattern

FLOOR MOUNT

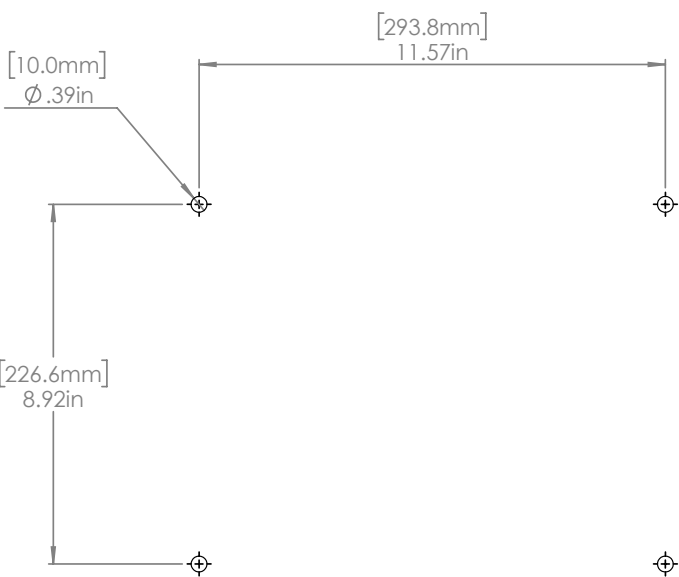


Fig 23: Floor mount bolt pattern

BOLT PATTERNS

SIDE MOUNT

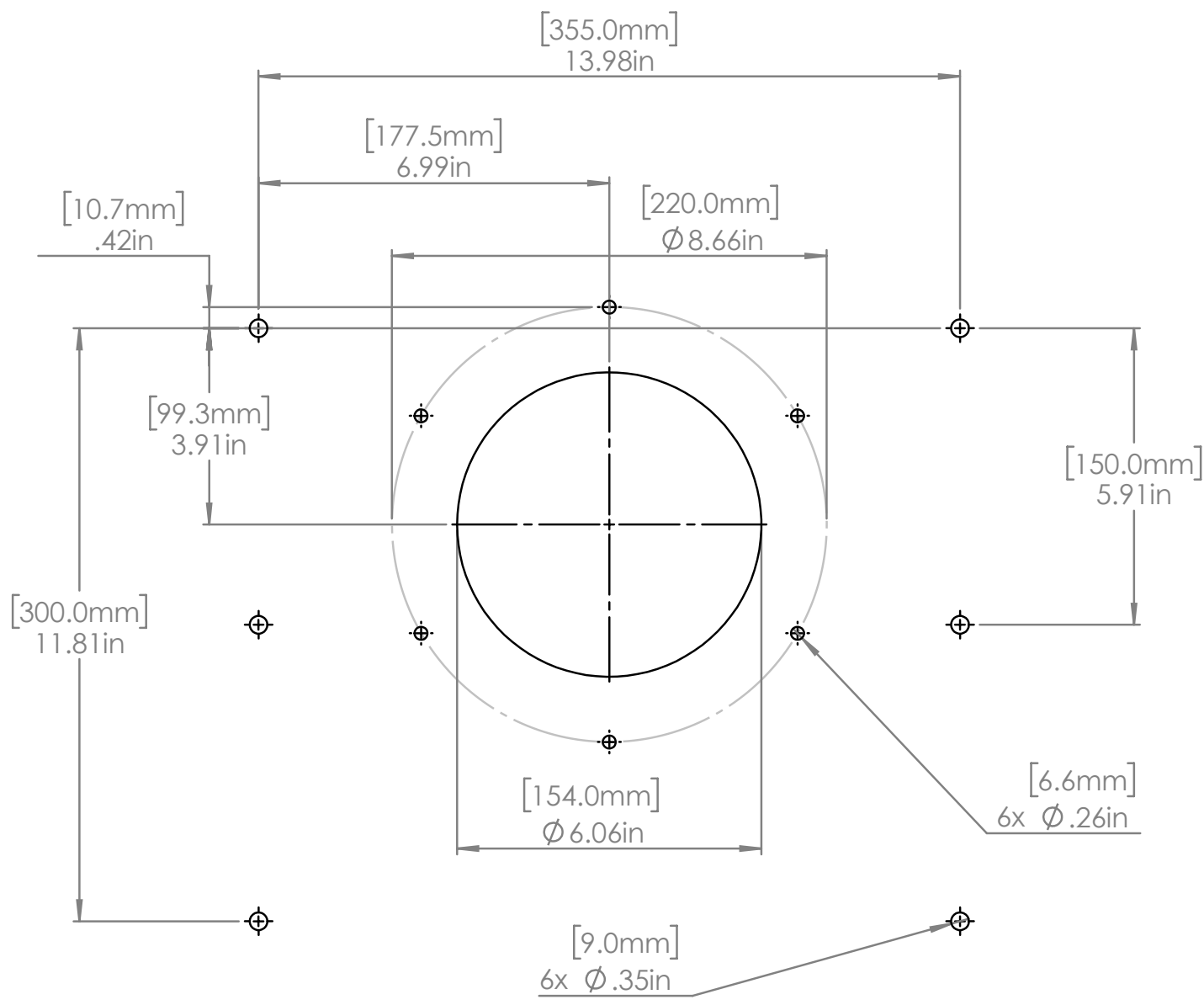


Fig 24: Side mount and hose flange bolt pattern

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PROTECT YOUR SUCCESS

WE'VE GOT YOUR BACK

Hennig Worldwide has been a global leader since 1950, specializing in chip and coolant management, machine protection, and facility safety. We work with a wide variety of manufacturers and other facilities worldwide, helping them create and maintain safe and efficient workplaces. Our commitment to excellence extends beyond our services—we actively contribute to local communities, create regional jobs, and support the global needs of machine tool customers.

ISO 9001:2015

REGISTERED

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