

**Husky**

## Recommended Installation, Maintenance and Inspection Instructions

**XS® XS® MFM,  
& 1AS NOZZLES**

### Pressure Activated Conventional Nozzles

159503	159553	159578	498166	498407	1595242N	12159208
^159503N	159554	159582	498167	498408	209866	12159209
159504	159559	159595	1398903	498466	1215903	1215903N
^159504N	159560	159596	1399203	1595126	1215904	
159507	159561	159597	1595108	1595146	1215961	
159508	159562	498103	1595171	1672004	1216203	
159543	159566	498104	1595179	1672059	1216204	
159544	159567	498108	1595211	159554N	1398903	
159545	159576	498161	498162	1595214N	1399203	

SEE LISTINGS FOR DETAILS

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS IN A READILY ACCESSIBLE LOCATION.



**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**WARNING** Designed for use at motor fuel dispensing facilities only.

### INSTALLATION INSTRUCTIONS

1. Turn off dispenser and relieve line pressure.
2. Use pipe thread sealant (not Teflon® tape) approved for gasoline on the male threads of hose section.
3. Tighten approximately 1 to 2 turns past hand tight - do not overtighten.
4. Pressurize system and visually inspect for leaks.
5. Test nozzle for proper automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
6. Perform pressure activation test (no pressure / no flow test).

**DO NOT OVERTIGHTEN. USE WRENCH ON HOSE NUT ONLY.**

### IF DRIVE OFF OCCURS

- Turn off dispenser and relieve line pressure.
- Visually check for fractured spout shear groove.
- Pressurize system and visually inspect for leaks.
- Check spout tip - should be in round and sensing port should be clear of debris.
- Perform flow test of nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
- Perform pressure activation test (no pressure / no flow test).
- Check for electrical conductivity.

### TESTING / MAINTENANCE / INSPECTION



Daily

- Check for leaks / stains.
- Check for loose spouts.
- Check for damage.
- Check for bent lever.
- Check for broken clip / trigger spring.



Monthly

- Check no pressure / no flow.
- Check nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm
- Check "remove after" date.



Annually

- Check for electrical conductivity.
- Lubricate main valve stem.

- All drive aways, maintenance and inspection activities must be logged using the serial number of the individual product.

- Apply city, state, or federal testing regulations as appropriate.

**ANY TEST / INSPECTION FAILURE REQUIRES  
IMMEDIATE EQUIPMENT REPLACEMENT OR  
REMOVAL FROM SERVICE.**

**MADE IN THE USA**



## ALWAYS ADHERE TO INSTALLATION / USAGE INSTRUCTIONS AND WARNINGS.

Improper use may result in injury, damage, or hazardous spill.



### GENERAL WARNINGS / INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS:



- Use of equipment is at individuals' own risk.

- Always abide and adhere to city, state, and federal regulations regarding use and installation of dispensing equipment.

- Always follow the product manufacturer's installation and maintenance instructions.



- Always turn off all power to dispenser during maintenance and inspection activities.

- Always close the shear valves during maintenance and inspection activities.

- Always relieve pressure from system prior to performing maintenance activities.



- Always check continuity after installation using a megohmmeter (Refer to PEI RP 400 for details).

- Always replace or remove from service damaged or leaking dispensing equipment immediately.



- Always report leaks / spills / accidents to appropriate authorities.



- Always wear appropriate safety equipment during maintenance activities.



- Always have appropriate fire extinguishing equipment within 5 ft / 1.5 m of dispensers.

- Always use pipe sealant approved for gasoline service.



- Always place containers on the ground before filling.



- Always discharge static electricity before using or servicing equipment by touching a metal part of the dispenser before and after fueling vehicle.



- Never smoke within 20 ft / 6.1 m of dispensers.



- Never keep in service past recommended life.



- Never leave the nozzle unattended while dispensing fuel.



- Never use power tools near dispensers or to aid in the installation process.



- Never use cell phone within 20 ft / 6.1 m of dispensers.



- Never reenter car when fueling vehicle.



- Never allow gasoline to touch eyes or skin.



- Never use at flow rates in excess of regulatory guidelines.

- Never use at flow rates less than 5 gpm / 18.9 Lpm.

- Never dispense flammable material into unapproved containers.

- Never dispense fuel without a valid driver's license.

## CAUTION: DO NOT TOP OFF!

Topping off can lead to spills and splashes.

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS IN AN EASILY ACCESSIBLE LOCATION.

## WARRANTY

**VAPOR PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky® manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year of installation or fifteen (15) months from the manufacture date of shipment by Husky, whichever occurs first. The warranty period on repaired or replacement vapor recovery products is only for the remainder of the warranty period of the defective product.

**CONVENTIONAL PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year from the manufacture date of shipment by Husky.

Buyer must return the products to Husky, transportation charges prepaid. This Warranty excludes the replaceable bellows, bellows spring assembly, spout assembly and scuff guard, unless (i) damage is obvious when the product is removed from shipping carton and (ii) the defective product is returned to Husky prior to use. This warranty does not apply to equipment or parts which have been installed improperly, damaged by misuse, improper operation or maintenance, or which are altered or repaired in any way.

The warranty provisions contained herein apply only to original purchasers who use the equipment for commercial or industrial purposes. There are no other warranties of merchantability, fitness for a particular purpose, or otherwise, and any other such warranties are hereby specifically disclaimed.

Husky assumes no liability for labor charges or other costs incurred by Buyer incidental to the service, adjustment, repair, return, removal or replacement of products. Husky assumes no liability for any incidental, consequential, or other damages under any warranty, express or implied, and all such liability is hereby expressly excluded.

Husky reserves the right to change or improve the design of any Husky fuel dispensing equipment without assuming any obligations to modify any fuel dispensing equipment previously manufactured.

## OPERATION INSTRUCTIONS

1. Activate dispenser.
2. Insert spout into fill pipe opening.
3. Lower hose end of nozzle so the spout spring catches the inside of the fill pipe.
4. Raise the lever and begin fueling.
5. Nozzle will shut off automatically when the tank is full.
6. Wait 15 seconds to allow any fuel remaining in the spout to drain.
7. Remove nozzle from fill pipe by raising hose end of the nozzle.
8. Return nozzle to nozzle boot.

NOTE: Nozzle is equipped with a unique Flo-Stop® device that shuts off the nozzle if it falls from fill pipe or raises above horizontal.

## PRESSURE ACTIVATION TEST INSTRUCTIONS

1. Verify nozzle has hold open clip.
2. Verify dispenser is turn off.
3. Place nozzle spout into test can.
4. Pull up lever and latch clip - a small amount of fuel may flow until the line pressure is relieved.
5. Turn on dispenser and select grade - nozzle should not dispense fuel.
6. Release the lever.
7. Pull up lever and latch clip - nozzle should dispense fuel.
8. Turn off dispenser - nozzle should stop dispensing fuel.
9. Turn dispenser on and select grade - nozzle should not dispense fuel.

NOTE: The no pressure / no flow device fulfills the NFPA Code 30A requirement regarding self-service nozzles with a hold open latch. If nozzle fails item #5 or #9, verify dispenser is not allowing constant pressure to the hose. If dispenser tests OK, replace nozzle.

## FLO-EQUALIZER® INSTALLATION INSTRUCTIONS

Model 004490 Standard Flo-Equalizer®

1. Turn off dispenser and relieve line pressure.
2. Install pipe nipple (if necessary) to achieve proper flow direction.
3. Use thread sealant (not Teflon® tape) on male threads.
4. Tighten approximately ½ turn past hand tight - do not overtighten.
5. Confirm nozzle is properly installed, pressurize the system and check for leaks.

DISCLAIMER: In the event of pressure differential in excess of 25 psi / 1.7 bar across the Flo-Equalizer® or the presence of debris obstructing movement of internal components, the Flo-Equalizer® output may exceed 10 gpm / 37.8 Lpm.

## TROUBLESHOOTING GUIDE

Nozzle keeps shutting off or won't dispense...	1. Make sure dispenser is on and activated. 2. Slow down flow rate - use lower notch on clip. 3. Clean spout tip end. 4. Clean or replace filter. 5. Inspect Safe-T-Break®. 6. Replace spout assembly. 7. Check dispenser pressure - 19 psi / 1.3 bar to activate nozzle. 8. Remove nozzle & drain hose
Nozzle won't shut off...	1. Check flow rate - minimum of 3 gpm / 11.4 Lpm required. 2. Remove nozzle and drain hose.
Nozzle leaks...	1. Check for loose spout. 2. Check hose connection. 3. Check for cracks in nozzle and hose threads.
Low flow rate...	1. Remove Flo-Equalizer® (if equipped). 2. Verify dispenser is not in slow flow rate mode. 3. Check for system leak.
Flow rate above 10 gpm / 37.8 Lpm...	1. Verify Flo-Equalizer® being used - either inside or outside dispenser. 2. Check Flo-Equalizer® for debris.

## GENERAL TECHNICAL DATA

<b>Fuel Type</b>	Test and warranty for gasoline and diesel fuel		
	XS® / XS® MFM		
<b>Flow Rate</b>	Unleaded w/o Flo-Equalizer® = 14 gpm / 52.9 Lpm		
	Light Duty Diesel w/o Flo-Equalizer® = 16 gpm / 60.6 Lpm		
	1AS		
	Unleaded w/o Flo-Equalizer® = 20 gpm / 90.9 Lpm		
	Light Duty Diesel w/o Flo-Equalizer® = 25 gpm / 94.6 Lpm		
<b>Body</b>	Die cast aluminum		
<b>Disc</b>	Fluorocarbon		
<b>Packing</b>	Double O-ring seal protected by fiber reinforced Teflon®		
<b>Lever</b>	XS®/XS® MFM, 1AS		
<b>Shipping Weight</b>	XS®		
	XS® MFM		
	1AS		
	XS® MFM = 1" / 25.4 mm NPT		
<b>Threads</b>	XS® = ¾" / 19.1 mm NPT		
	1AS = 1" / 25.4 mm NPT		
	Unleaded = 13/16" / 20.6 mm O.D.		
<b>Spout</b>	Light Duty Diesel = 15/16" / 23.8 mm O.D.		
<b>Case Quantity</b>	15		

**Listings**      Default      ^ NOT LISTED



## SPOUT REPLACEMENT INSTRUCTIONS

Model 001471 Light Duty Diesel Spout,  
001473 Unlead Spout

1. Remove spout lock nut and spout.
2. Remove and discard spout seal.
3. Place new spout seal in groove.

4. Insert new spout into body making sure the vent tube is in the port.
5. While holding the spout in proper alignment, tighten spout lock nut firmly, approximately 35 - 60 lbf·ft / 47 - 81 N·m. Do not overtighten.

## HOLD OPEN CLIP INSTRUCTIONS

### REMOVAL

1. Remove nozzle from hose and drain.
2. Place nozzle on a flat surface in safe location.
3. Hold up on the latch clip to prevent rivet from rotating.

4. Drill off the riveted end using a ¼ " / 6.4 mm bit.
5. Remove clip, rivet and torsion clip spring.
6. Do not remove latch plate.

NOTE: Nozzles can be ordered without clips.

## GUARD REPLACEMENT INSTRUCTIONS

### NOZZLE GUARD

Model 004145, 012164

1. Turn off dispenser and relieve line pressure.
2. Remove nozzle from hose.
3. Remove waffle splash guard (if applicable).
4. Remove old nozzle guard.
5. Install new guard over spout and pull back to cover nozzle body.
6. Re-install nozzle to hose.
7. Re-install waffle splash guard (if applicable) over spout lock nut.
8. Test nozzle for automatic shut off.

### PROTECTION PACKAGE

Model 001506

1. Turn off dispenser and relieve line pressure.
2. Remove nozzle from hose.
3. Remove old waffle splash guard (if applicable).
4. Remove old nozzle guard.
5. Install new guard over spout and pull back to cover nozzle body.
6. Install new waffle splash guard over spout lock nut.
7. Re-install nozzle to hose.
8. Test nozzle for automatic shut off.

### POPD® REGUARD

Model 007205, 008192

1. Remove waffle splash guard (if applicable).
2. Cut old nozzle guard at nozzle inlet and remove from nozzle.
3. Install new POPD® guard over spout and pull back to cover nozzle body.
4. Pull tie through the eyelets and loop under nozzle inlet.
5. Pull tightly and trim off excess tie.
6. Re-install waffle splash guard (if applicable) over spout lock nut.
7. Install desired advertisement and clear cover (model 006628).

### NOZZLE REGUARD

Model 001806

1. Remove waffle splash guard (if applicable).
2. Cut old nozzle guard at nozzle inlet and remove from nozzle.
3. Install new nozzle guard over spout and pull back to cover nozzle body.
4. Pull tie through the eyelets and loop under nozzle inlet.
5. Pull tightly and trim off excess tie.
6. Re-install waffle splash guard (if applicable) over spout lock nut.

### WAFFLE SPLASH GUARD

Model 001807, 001808

1. Remove old waffle splash guard.
2. Install new waffle splash guard over spout lock nut.

### POPD® GUARD

Model 006665, 008185

1. Turn off dispenser and relieve line pressure.
2. Remove nozzle from hose.
3. Remove waffle splash guard (if applicable).
4. Remove old nozzle guard.
5. Install new POPD® guard over spout and pull back to cover nozzle body.
6. Re-install nozzle to hose.
7. Re-install waffle splash guard (if applicable) over spout lock nut.
8. Test nozzle for automatic shut off.
9. Install desired advertisement and clear cover (model 006628).

### POPD® CLEAR COVER

Model 006628, 008181

1. Trim advertisement to desired shape.
2. Turn clear cover "inside out".
3. Center advertisement on POPD® guard, using the notched corners as guides, and fold over the edges.
4. Lay clear cover over advertisement, making sure the advertisement stays centered, and turn it "right side out".
5. Confirm the cover is securely in place.

### REGUARD PACKAGE

Model 001809

1. Remove old waffle splash guard.
2. Cut old nozzle guard at nozzle inlet and remove from nozzle.
3. Install new nozzle guard over spout and pull back to cover nozzle body.
4. Pull tie through the eyelets and loop under nozzle inlet.
5. Pull tightly and trim off excess tie.
6. Install new waffle splash guard over spout lock nut.

## ACCESSORIES

Model 000385 Reducer Bushing (1" / 25.4 mm X ¾" / 19.1 mm)

Model 000397 Unleaded spout gauge