

**Husky**

## Recommended Installation, Maintenance and Inspection Instructions

**XS® & XS® MFM  
NOZZLES**

### Pressure Activated Conventional Nozzles

Model #	159524	159558	159568	159582	265804	265854	498107	503903	1595106	1595128
159503	159543	159559	159575	159585	265807	265857	498108	503904	1595108	1595130
159504	159544	159560	159576	159589	265808	265858	498161	539603	1595109	1595131
159507	159545	159561	159577	159595	265824	265863	498162	539604	1595120	1595133
159508	159553	159562	159578	159596	265844	265864	498167	539660	1595122	1595146
159523	159554	159566	159579	159597	265845	498103	498195	*539624A	1595124	
	159557	159567	159580	265803	265853	498104	498196	539676	1595127	

\* - SEE LISTINGS FOR DETAILS

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

**⚠ 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 place containers on the ground before filling.



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



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



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



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



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



- Never keep in service past recommended life.



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



- Never use sparking or flaming devices within 20 ft / 6.1 m of dispensers.



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



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

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



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

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



- Never reenter car when fueling vehicle.

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

- Never allow gasoline to touch eyes or skin.

- Always wear appropriate safety equipment during maintenance activities.

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

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

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

- Always use pipe sealant approved for gasoline service.

- 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 A READILY 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 #4490 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.

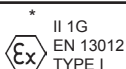
Flow rate above 10 gpm / 37.8 Lpm...

1. Verify Flo-Equalizer® being used - either inside or outside dispenser.
2. Check Flo-Equalizer® for debris.

## GENERAL TECHNICAL DATA

Fuel Type	Test and warranty for gasoline and diesel fuel		
Flow Rate	XS® / XS® MFM	Unleaded w/o Flo-Equalizer® = 14 gpm / 52.9 Lpm Light Duty Diesel w/o Flo-Equalizer® = 16 gpm / 60.6 Lpm	
Body	Die cast aluminum		
Disc	Fluorocarbon		
Packing	Double O-ring seal protected by fiber reinforced Teflon		
Lever	One piece contoured steel		
Shipping Weight	XS®	Unlead = 3.1 lbs / 1.4 kg	Light Duty Diesel = 3.1 lbs / 1.4 kg
	XS® MFM	Unlead = 3.3 lbs / 1.4 kg	Light Duty Diesel = 3.3 lbs / 1.4 kg
Threads	XS® = ¾" / 19.1 mm NPT		XS® MFM = 1" / 25.4 mm NPT
Spout	Unlead = 13/16" / 20.6 mm O.D.		Light Duty Diesel = 15/16" / 23.8 mm O.D.
Case Quantity	15		

\* Listings



## SPOUT REPLACEMENT INSTRUCTIONS

Model #1471 Light Duty Diesel Spout,  
#1473 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

Model #3593 Hold Open Clip Kit

### INSTALLATION

1. Remove nozzle from hose and drain.
2. Position latch spring under latch clip and hose them in place. The latch clip should straddle the mating holes in the trigger lever.
3. Insert latch rivet through latch clip and lever, making sure latch spring is secured in position by the rivet.
4. Install push nut on rivet - DO NOT hammer in place.
5. Squeeze lever several times to check operation.
6. Verify clip and lever are parallel.

NOTE: Field installation of the hold open clip is NOT UL approved because improper installation may cause the nozzle to fail.

### 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 #4145

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.

### NOZZLE REGUARD

Model #1806

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.

### REGUARD PACKAGE

Model #1809

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.

### PROTECTION PACKAGE

Model #1506

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.

### WAFFLE SPLASH GUARD

Model #1807, 1808

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

### POPD® GUARD

Model #6665, #8185

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 #6628).

### POPD® REGUARD

Model #7205, #8192

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 #6628).

### POPD® CLEAR COVER

Model #6628, #8181

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.

## ACCESSORIES

Model #0385 Reducer Bushing (1" / 25.4 mm X ¾" / 19.1 mm)

Model #0397 Unleaded spout gauge