KURIYAMA FIRE PRODUCTS™

Fire Nozzles

End-to-End Firefighting Solutions

KURIYAMA OF AMERICA, INC.

EDITION 0925

History

Kuriyama Fire Products (KFP) is a division of Kuriyama of America. For more than 50 years, KFP has been a trusted supplier of fire hose to municipal and industrial fire departments across the United States and Canada. Today, Kuriyama Fire Products offers a comprehensive line of fire hose and nozzles, continuing its legacy of quality, innovation, and service. Kuriyama Fire Products has manufacturing facilities in both the US and Canada.

The company's origins date back to 1966, when it was founded as Jaffrey Fire Protection. It quickly gained recognition for pioneering the use of large diameter hose and for introducing innovative water supply solutions that advanced modern firefighting practices. Kuriyama of America is headquartered in Schaumburg, Illinois, just outside of Chicago. Kuriyama of America has eight manufacturing facilities in North America, as well as, five distribution facilities across the US.

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Kuriyama Fire Products reserves the right to modify any specification without prior notice to meet or exceed changing standards. Special diameters or construction characteristics can be produced upon special request. Contact your local dealer or KFP at: sales@kuriyamafireproducts.com

Index by Part Numbers

The Ultimate Concept in Firefighting Nozzles

RYLSTATIC® is the ultimate concept in firefighting nozzles. It is a patented design made by **TIPSA** as a result of continuous research and development.

RYLSTATIC® is an improved alternative to fixed bumper teeth and spinning turbine teeth that improves firefighting nozzles in the following points:

1. Less friction loss
2. Improved FOG, more uniform with smaller water droplets. Greater heat absorption.
3. Ease of maintenance
4. Solid protection shield

1. Less Friction Loss

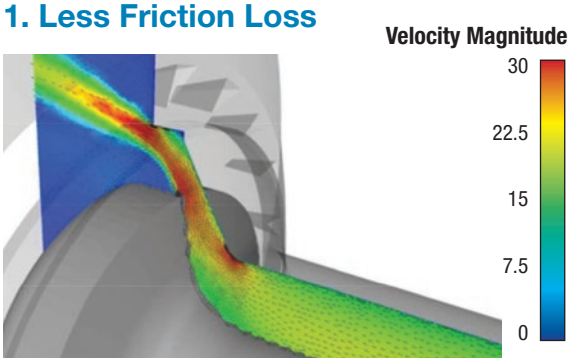


Image 1a: Velocity of Water – Spinning teeth

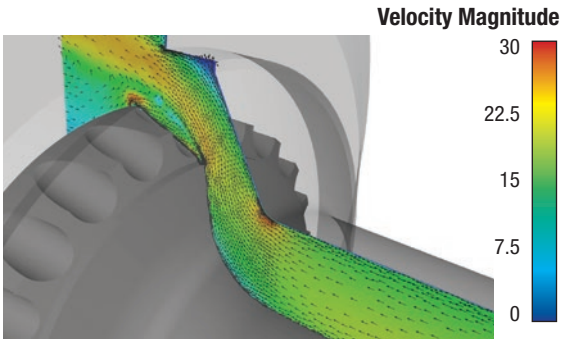


Image 1b: Velocity of Water – RYLSTATIC®

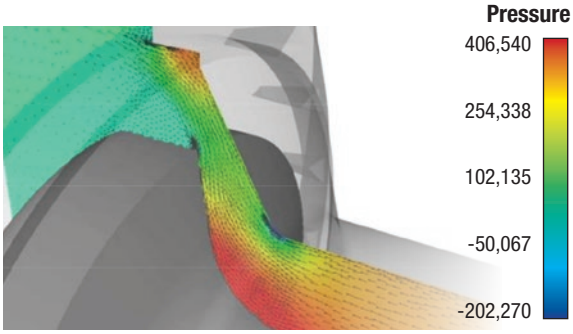


Image 2a: Static Pressure Distribution – Spinning Teeth

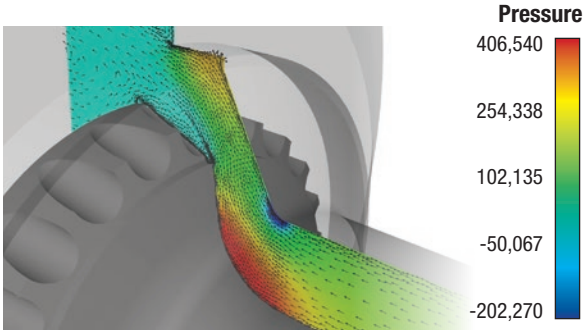


Image 2b: Static Pressure Distribution – RYLSTATIC®

2. Improved FOG, more uniform with smaller water drops. Greater rate of heat absorption.

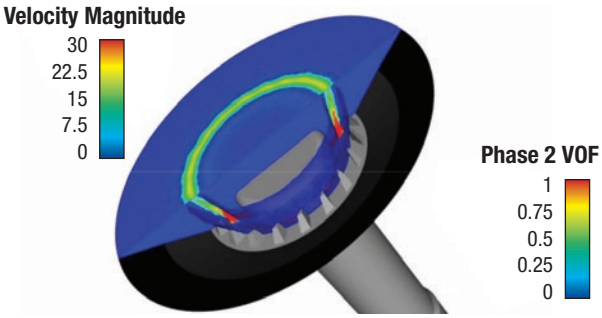


Image 3: Speed Magnitude vs Turbulence Intensity (before spinning Teeth turbine)

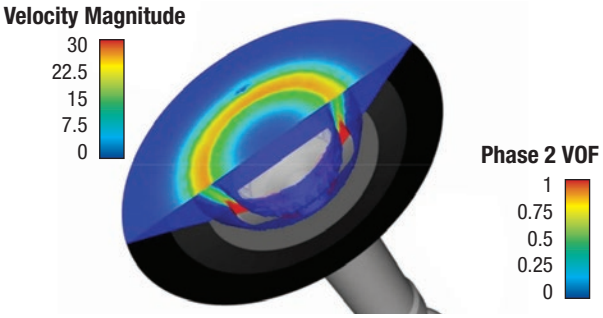


Image 4: Speed Magnitude vs Turbulence Intensity (RYLSTATIC®)

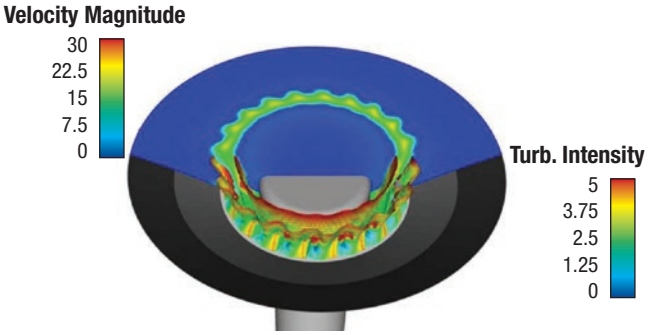


Image 5: Speed Magnitude vs Turbulence Intensity (spinning Teeth turbine)

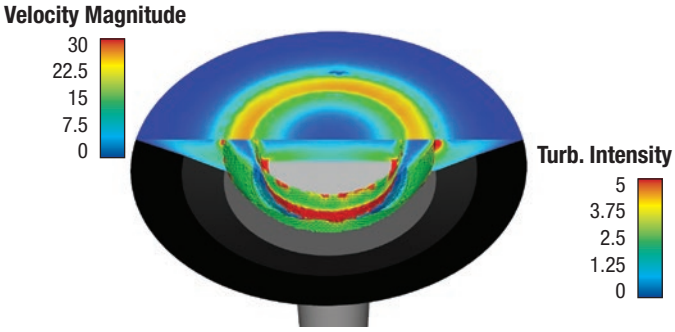


Image 6: Speed Magnitude vs Turbulence Intensity (RYLSTATIC®)

The sooner the water starts its mixture with air, the better the FOG will become. The water drops are smaller but we have maintained the effective reach of the nozzle in FOG Positions.

3. Ease of Maintenance — No spinning teeth to break.

RYLSTATIC® IS AVAILABLE IN THE
VIPER® Blue Devil®, VIPER® Attack® and VIPER® Spartan® models.

All of these nozzles have been designed and produced to meet the requirements of the National Fire Protection Association (NFPA) 1964 and the Spanish Association for Standardization (UNE) and European Standards (EN) -15182-1 and UNE EN 15182-2 Type 3.

Viper® BlueDevil®

Premium Quality Selectable Gallonage Nozzle

Viper® Blue Devil®

Provide Multiple Flow Selections and Stream Patterns While Maintaining Constant Gallonage with All Multiple Flow and Pattern Settings

General Applications:

- Municipal and industrial firefighting use

Construction:

- Manufactured with highest quality anodized aluminum and a long lasting protective surface to provide protection against corrosion.
- Superior quality valve with dual seat and dual drive shaft.
- The valve itself is a low maintenance product with a stainless steel ball valve (except for the 2 1/2" size which utilizes a highly engineered polymer resin ball) operated through an OPEN/CLOSE lever.

Features and Advantages:

Flow Settings – The flow rate can be set through an easy grip ring featuring preset positions. The flow ring has a raised lug to identify the maximum flow setting in low visibility conditions.
The FLUSH mode is used to ensure that any debris is flushed from the nozzle to avoid pattern disruptions or flow reductions.

Stream Pattern – The nozzle stream is adjusted by rotating the bumper giving the firefighter the widest fog pattern (Full Fog – Protection) to the narrowest fog pattern (Narrow Fog and Straight Stream). The bumper has a raised lug to identify the Narrow Fog in low visibility conditions.

RYLSTATIC® Patented System – The VIPER® BLUE DEVIL® series comes standard with the innovative patented fog pattern called RYLSTATIC®. RYLSTATIC® is a system that gives you a uniform water fog with smaller water droplets and less friction loss than other traditional systems. VIPER® BLUE DEVIL® nozzles have been designed to offer a broader fog shield of protection to the firefighters. Traditional spinning teeth are available as an option on all VIPER® BLUE DEVIL® nozzles.

Shut Off Valve – The operation is smooth and constant allowing firefighters to open and close the valve easily. The valve has a dual seat and dual driven shaft to offer better performance against water hammers and to enhance its durability.

Foam Use – The VIPER® BLUE DEVIL® nozzle can be used as a foam nozzle with the addition of the optional Foam Tube. The nozzle works well with pre-mixed solutions or with inline Eductors.

Ring Markings – Markings on the flow selector ring and the pattern ring are laser engraved onto anodized aluminum to ensure they are easy to read and will not fade.

Lot Number – Every nozzle is marked with a lot number before leaving the factory. This number can be used for traceability purposes.

Stainless Steel Inlet Screen – A stainless steel screen is mounted within the inlet to prevent material from entering the nozzle which reduces the risk of damage or failure during operation.

Inlet Options – The VIPER® BLUE DEVIL® selectable flow nozzles are available with the following standard threads:

- NST/NH Female
- NPSH/IPT Female
- BSP Female

The swivel inlet allows the nozzle to rotate continuously while connected to the hose.

Approvals and Standards – The VIPER® BLUE DEVIL® nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Service and Maintenance - The VIPER® BLUE DEVIL® nozzle requires minimal maintenance during operation provided the unit is regularly flushed with clean water after being used with foam or contaminated water. Service kits are also available.

1" VIPER® BLUE DEVIL®*

Nozzle Part Number	Nozzle Model	Swivel Inlet (in)	Nozzle Flow		Effective Reach		Length		Weight (each)	
			(gpm)	(lpm)	(ft)	(m)	(in)	(cm)	(lbs)	(kg)
I217637	BD550	1	5 15 30 50	25 50 125 175	52 66 75 89	16 20 23 27	8.27	21	3.75	1.70
I217867	BD1330	1	13 23 30	50 90 115	66 72 79	20 22 23	8.27	21	3.75	1.70
I217832	BD1560	1	15 30 45 60	50 100 160 210	66 79 82 92	20 23 25 27	8.27	21	3.75	1.70

*Perfect performance even at 40 bar (580 psi)

Premium Quality Selectable Gallonage Nozzle

1 1/2" VIPER® BLUE DEVIL®

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (in)	Nozzle Flow		Effective Reach		Length		Weight	
			(gpm)	(lpm)	(ft)	(m)	(in)	(cm)	(lbs)	(kg)
I218913	BD3012	1 1/2	30 60 95 125	115 230 360 465	79 92 115 128	23 27 33 37	9.53	24.2	4.52	2.05
I218884	BD3015	1 1/2	30 60 95 125 150	115 230 360 470 560	79 92 115 128 131	23 27 33 37 38	9.53	24.2	4.52	2.05
I219944	BD9520	1 1/2	95 125 150 200	360 470 560 750	115 128 131 138	33 37 38 39	11.00	28	6.61	3.00

2 1/2" VIPER® BLUE DEVIL®

Nozzle Part Number	Nozzle Model	Swivel Inlet (in)	Nozzle Flow		Effective Reach		Length		Weight (each)	
			(gpm)	(lpm)	(ft)	(m)	(in)	(cm)	(lbs)	(kg)
I218201	BD9520	2 1/2	95 125 150 200	360 470 560 750	115 128 131 138	33 37 38 39	12.99	33	7.28	3.30
I219946	BD12250	2 1/2	125 150 200 250	470 560 750 950	128 131 138 144	37 38 39 41	13.36	34	7.28	3.30

1 1/2" VIPER® BLUE DEVIL® TIP Only

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (in)	Nozzle Flow		Effective Reach		Length		Weight	
			(gpm)	(lpm)	(ft)	(m)	(in)	(cm)	(lbs)	(kg)
I230031	BD3012	1 1/2	30 60 95 125	115 230 360 465	79 92 115 128	23 27 33 37	6.10	15	2.60	1.20
I230030	BD3015	1 1/2	30 60 95 125 150	115 230 360 470 560	79 92 115 128 131	23 27 33 37 38	6.10	15	2.60	1.20
I230029	BD9520	1 1/2	95 125 150 200	360 470 560 750	115 128 131 138	33 37 38 39	7.60	19.3	4.20	1.90

The innovative RYLSTATIC® System is patented technology.

RYLSTATIC SYSTEM
Innovative Fog Technology

Viper® ATTACK®

Premium Quality Selectable Gallonage Nozzle

Viper® ATTACK®

General Applications:

Versatile light weight selectable flow nozzles for Municipal and Industrial firefighting use

Construction:

- Manufactured with highest quality anodized aluminum and a long lasting protective surface to provide protection against corrosion.
- Superior quality valve with dual seat and dual drive shaft.
- The valve itself is low maintenance with a stainless steel ball valve operated through an OPEN/CLOSE handle.

Features and Advantages:

Flow Settings – The flow rate can be set through an easy grip ring featuring preset positions. The flow ring has a raised lug to identify the maximum flow setting in low visibility conditions.

The FLUSH mode is used to ensure that any debris is flushed from the nozzle to avoid pattern disruptions or flow reductions

Stream Pattern – The nozzle stream is adjusted by rotating the bumper giving the firefighter the widest fog pattern (Full Fog – Protection) to the narrowest fog pattern (Narrow Fog and Straight Stream). The bumper has a raised lug to identify the Narrow Fog in low visibility conditions.

RYLSTATIC® Patented System – The VIPER® ATTACK® series comes standard with the innovative patented fog pattern called RYLSTATIC®.

RYLSTATIC® is a system that gives you a uniform water fog with smaller water droplets and less friction loss than other traditional systems. VIPER® ATTACK® nozzles are designed to operate with a wider fog shield of protection for the firefighter.

Shut Off Valve – The operation is smooth and constant allowing firefighters to open and close the valve easily. The valve has a dual seat and dual driven shaft to offer better performance against water hammer and to enhance its durability.

Foam Use – The VIPER® ATTACK® nozzle can be used as an aspirating foam nozzle with the addition of the optional foam tube. The nozzle works well with pre-mixed solutions or with inline eductors.

Ring Markings – Markings on the flow selector ring and the pattern ring are laser engraved onto anodized aluminum that are easy to read and will not fade.

Lot Number – Every nozzle is marked with a lot number before leaving the factory. This number can be used for traceability purposes.

Stainless Steel Inlet Screen – A stainless steel screen is mounted within the inlet to prevent materials from entering the nozzle, which reduces the risk of damage or failure during operation.

Premium Quality Selectable Gallonage Nozzle

Inlet Options – The VIPER® ATTACK® selectable flow nozzles are available with the following standard threads:

- NST/NH Female
- NPSH/IPT Female
- BSP Female

The swivel inlet allows the nozzle to rotate continuously while connected to the hose.

Approvals and Standards - The VIPER® ATTACK® nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Service and Maintenance – The VIPER® ATTACK® nozzle requires minimal maintenance during operation provided the unit is regularly flushed with clean water after being used with foam or contaminated water. Service kits are also available.

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Length		Nozzle Flow		Effective Reach		Attach. Foam Tube	Weight (each)	
			(in)	(cm)	(gpm)	(lpm)	(ft)	(m)		(lbs)	(kg)
I218899	VA550	1*	7.87	20	5	25	52	16	CEP VA 1"	3.02	1.37
					15	50	66	20			
					30	125	79	24			
					50	175	85	26			
I219953	VA1560	1*	7.87	20	15	50	66	20	CEP VA 1"	3.02	1.37
					30	100	75	23			
					45	160	82	25			
					60	200	89	27			
I230074	VA3012	1 1/2	9.37	23.8	30	115	79	23	CEP VA 1 1/2"	4.29	1.95
					60	230	92	27			
					95	360	115	33			
					125	465	128	37			

*Perfect performance even at 580 psi (40 bar)

The Effective Reach measured in feet is at 100 PSI, while the effective reach measured in meters is at 6 Bar (85 PSI). The RYLSTATIC® System is a low maintenance system.

RYLSTATIC SYSTEM
Innovative Fog Technology

Patented Rylstatic® Technology

The ultimate concept in firefighting nozzles!

Viper® SPARTAN®

Fixed Orifice, Lightweight, Constant Flow Fire Hose Nozzle

Viper® SPARTAN®

General Applications:

- Versatile, easy to use and available in four models with over 40 flow and pressure configurations to meet any demand
- Created for the extremes of today's firefighting

Construction:

- Lightweight, hard coat anodized aluminum.
- Durable construction provides low maintenance with no spinning teeth to break.
- Raised protective rubber bumper lug for easy pattern identification.
- Full-time rocker lug swivel with ergonomic pistol grip.

Features and Advantages:

RYLSTATIC® Patented System – The VIPER® SPARTAN® series comes standard with the innovative patented fog pattern called RYLSTATIC®.

RYLSTATIC® is a system that gives you a uniform water fog with smaller water droplets and less friction loss than other traditional systems.

VIPER® SPARTAN® nozzles are designed to operate with a wider fog shield of protection for the firefighter.

Excellent Stream Performance – at a variety of pressures ranging from 50 PSI (3.5 bar) to 100 PSI (7 bar)

Approvals and Standards – The VIPER® SPARTAN® nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Warranty – 5-year warranty.

RYLSTATIC SYSTEM
Innovative Fog Technology

Patented Rylstatic® Technology
The ultimate concept in firefighting nozzles!

Viper® Spartan® 25 (1")

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I219931-007	VS25	1			19	5	2.72	1.23
I219931-008	VS25	1			50	15	2.72	1.23
I219931-009	VS25	1			150	30	2.72	1.23
I219931-010	VS25	1			250	60	2.72	1.23

Viper® Spartan® 95 (1 1/2")

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I218839-000	VS95	1 1/2	60				3.53	1.60
I218839-001	VS95	1 1/2	75				3.53	1.60
I218839-002	VS95	1 1/2	95				3.53	1.60
I218839-003	VS95	1 1/2		60			3.53	1.60
I218839-004	VS95	1 1/2		75			3.53	1.60
I218839-005	VS95	1 1/2		95			3.53	1.60
I218839-006	VS95	1 1/2		125			3.53	1.60
I218839-007	VS95	1 1/2			250	60	3.53	1.60
I218839-008	VS95	1 1/2			360	75	3.53	1.60
I218839-009	VS95	1 1/2			400	95	3.53	1.60
I218839-010	VS95	1 1/2			500	125	3.53	1.60

Viper® Spartan® 150 (1 1/2")

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I218847-000	VS150	1 1/2	95				4.96	2.25
I218847-001	VS150	1 1/2	125				4.96	2.25
I218847-002	VS150	1 1/2	150				4.96	2.25
I218847-003	VS150	1 1/2		95			4.96	2.25
I218847-004	VS150	1 1/2		125			4.96	2.25
I218847-005	VS150	1 1/2		150			4.96	2.25
I218847-006	VS150	1 1/2		175			4.96	2.25
I218847-007	VS150	1 1/2			500	125	4.96	2.25
I218847-008	VS150	1 1/2			550	150	4.96	2.25
I218847-009	VS150	1 1/2			650	175	4.96	2.25
I218847-010	VS150	1 1/2			750	200	4.96	2.25

Viper® Spartan® 300 (2 1/2")

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I230214 A-000	VS300	2 1/2	200				5.73	2.60
I230214 A-001	VS300	2 1/2	250				5.73	2.60
I230214 A-003	VS300	2 1/2		200			5.73	2.60
I230214 A-004	VS300	2 1/2		250			5.73	2.60
I230214 A-007	VS300	2 1/2			750	200	5.73	2.60
I230214 A-008	VS300	2 1/2			940	250	5.73	2.60
I230214 A-009	VS300	2 1/2			1030	275	5.73	2.60

Viper® Spartan® 95 (1 1/2") Tip Only

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I230027-000	VS95	1 1/2	60				2.10	0.95
I230027-001	VS95	1 1/2	75				2.10	0.95
I230027-002	VS95	1 1/2	95				2.10	0.95
I230027-003	VS95	1 1/2		60			2.10	0.95
I230027-004	VS95	1 1/2		75			2.10	0.95
I230027-005	VS95	1 1/2		95			2.10	0.95
I230027-006	VS95	1 1/2		125			2.10	0.95
I230027-007	VS95	1 1/2			250	60	2.10	0.95
I230027-008	VS95	1 1/2			360	75	2.10	0.95
I230027-009	VS95	1 1/2			400	95	2.10	0.95
I230027-010	VS95	1 1/2			500	125	2.10	0.95

Viper® Spartan® 150 (1 1/2") Tip Only

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	50 PSI (gpm)	75 PSI (gpm)	6 BAR (lpm)	100 PSI (gpm)	Weight (each)	
							(lbs)	(kg)
I230026-000	VS150	1 1/2	95				3.20	1.45
I230026-001	VS150	1 1/2	125				3.20	1.45
I230026-002	VS150	1 1/2	150				3.20	1.45
I230026-003	VS150	1 1/2		95			3.20	1.45
I230026-004	VS150	1 1/2		125			3.20	1.45
I230026-005	VS150	1 1/2		150			3.20	1.45
I230026-006	VS150	1 1/2		175			3.20	1.45
I230026-007	VS150	1 1/2			500	125	3.20	1.45
I230026-008	VS150	1 1/2			550	150	3.20	1.45
I230026-009	VS150	1 1/2			650	175	3.20	1.45
I230026-010	VS150	1 1/2			750	200	3.20	1.45

Viper® SG™

High Performance Nozzles with Multiple Gallonage Flows

Viper® SG™

General Applications:

Versatile light weight selectable flow nozzles for municipal and industrial firefighting use

Construction:

- Extruded E-Lite alloy, lightweight, hard coated and durable.
- Durable polymer shut-off handles.
- Polyamide fiber reinforced spinning teeth.

Features and Advantages:

- Constant gallonage in all positions and flows.
- 4 gallonage selection ring, without pattern changes.
- Flush without shutting nozzle down.
- Designed for use with foam eductors and CEP foam tubes.

Approvals and Standards – The VIPER® SG™ nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility.

Viper® SG™ Nozzles

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I217408	SG540MOP NST	1	5	19	7.87	20	3.44	1.56
			10	37				
			25	90				
			40	150				
I210426	SG1560 NPSH	1	15	50	7.87	20	3.44	1.56
			30	125				
			50	200				
			60	230				
I210425	SG1560 NST	1	15	50	7.87	20	3.44	1.56
			30	125				
			50	200				
			60	230				

Viper® SG™ Nozzles *(continued)*

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I210431	SG3012 NPSH	1 1/2	30	115	8.85	22	4.30	1.95
			60	230				
			95	360				
			125	475				
I210430	SG3012 NST	1 1/2	30	115	8.85	22	4.30	1.95
			60	230				
			95	360				
			125	475				
I210435	SG7515 NST	1 1/2	75	265	8.85	22	4.30	1.95
			100	380				
			125	500				
			150	600				
I210443	SG9520 NST	1 1/2	95	360	11.20	28	6.57	2.98
			125	475				
			150	600				
			200	800				
I210449	SG12250 NST	2 1/2	125	500	12.80	33	7.30	3.31
			150	600				
			200	800				
			250	1000				

Viper® SG™ Tip Only

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I210451	SG3012 NST	1 1/2	30	115	6.10	15	2.80	1.27
			60	230				
			95	360				
			125	475				
I210454	SG9520 NST	1 1/2	95	360	8.60	22	3.80	1.72
			125	475				
			150	600				
			200	800				
I210456	SG12250 NST	1 1/2	125	475	8.60	22	3.80	1.72
			150	600				
			200	800				
			250	1000				

Viper® CG™

Heavy-Duty, Professional Constant Gallonage Nozzles

Viper® CG™

General Applications:

- Ideal for use in demanding fireground applications

Construction:

- Extruded E-Lite alloy, lightweight, hard coated and durable.
- Durable polymer shut-off handles.
- Polyamide fiber reinforced spinning teeth.

Features and Advantages:

- Constant gallonage in all positions.
- Flush without shutting down nozzle.
- Two-part rubber bumpers provide maximum protection and easier grip.

Approvals and Standards – The VIPER® CG™ nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility.

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I210480	CG2510 NST	1 1/2	95	360	9.84	25	4.54	2.06
I210482	CG5016 NST	1 1/2	125	475	9.84	25	4.45	2.02
I211173	CG8020 NPSH	1 1/2	200	800	11.20	28	6.40	2.90
I210486	CG8020 NST	1 1/2	200	800	11.20	28	6.40	2.90
I210487	CG8020 NST	2 1/2	200	800	13.00	33	7.20	3.26

The Nozzles That Get You to the Seat of the Fire

Viper® BORE NOZZLE

Viper fire suppression from Kuriyama Fire Products.

General Applications:

The VIPER® Bore Nozzle is the combination of a VIPER® Bore Tip and a VIPER® Shut-Off for effective fire suppression.

Construction:

- Lightweight hard coat anodized aluminum

Features and Advantages:

- Combine with the Viper Ball Valve with Dual Seat and Dual Driven Shaft for superior firefighting solutions.
- Concentrated water flow while using lower pressures.
- Several sizes and orifices available.
- Select the nozzle tip size to meet your individual needs.

Approvals and Standards – The VIPER® Bore Nozzle is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Service and Maintenance:

The VIPER® Bore Nozzles require minimal maintenance during operation provided the unit is regularly flushed with clean water after being used with contaminated water. Service kits are also available.

ADAPTER BORE

PLAIN TIP

SMOOTH BORE TIP

DUAL STACKED TIP

Viper® BORE TIP

Provide Flow Discharge at Different Pressures

Construction:

- All VIPER® Bore Tip models use standard NH inlet threads.

Features and Advantages:

- **VIPER® Bore Tip Flow Markings** - Flow markings on the VIPER® Bore Tip are laser engraved onto hard coat anodized aluminum that are easy to read and will not fade.

Approvals and Standards – The VIPER® Bore Tip is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

VIPER® Bore Tip Flow Discharge at Different Pressures:

Bore Size (in)	Water Flow Discharge							
	at 50 psi (3.4 bar)		at 75 psi (5.2 bar)		at 80 psi (5.5 bar)		at 100 psi (6.9 bar)	
	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
3/8	30	114	36	136	37	140	42	159
1/2	53	200	64	242	66	250	74	280
5/8	82	310	101	382	104	394	116	439
3/4	118	447	145	549	149	564	167	632
7/8	161	609	197	746	203	768	227	859
15/16	185	700	226	856	234	886	261	988
1	210	795	257	973	266	1,007	297	1,124
1 1/16	237	897	290	1,098	300	1,136	335	1,268
1 1/8	266	1,007	326	1,234	336	1,272	376	1,423
1 1/4	328	1,242	402	1,522	415	1,571	464	1,756

Part Number	Type	Inlet (in)	Bore Size (Orifice)		Length		Weight (each)	
			(in)	(mm)	(in)	(mm)	(lbs)	(kg)
I218647	Adapter Bore	1 1/2 x 1 1/2	15/16	23.8	2 3/4	7.0	0.85	0.39
I218674	Plain Tip	1	3/8	9.5	4 1/3	11.0	0.50	0.23
I218675		1	1/2	12.7	4 1/3	11.0	0.50	0.23
I218646		1	5/8	15.9	4 1/3	11.0	0.50	0.23
I218677		1 1/2	5/8	15.9	3 3/4	9.5	0.60	0.27
I218676		1 1/2	3/4	19.1	3 3/4	9.5	0.60	0.27
I218649		1 1/2	7/8	22.2	3 3/4	9.5	0.60	0.27
I218678		1 1/2	15/16	23.8	3 3/4	9.5	0.60	0.27
I218668	Smooth Bore Tip	1 1/2	3/4	19.1	5	12.7	0.80	0.36
I218669		1 1/2	7/8	22.2	5	12.7	0.80	0.36
I218670		1 1/2	15/16	23.8	5	12.7	0.80	0.36
I218671		1 1/2	1	25.4	5	12.7	0.80	0.36
I218672		1 1/2	1 1/16	27.0	5	12.7	0.80	0.36
I218644		1 1/2	1 1/8	28.6	5	12.7	0.80	0.36
I218673		1 1/2	1 1/4	31.8	5	12.7	0.80	0.36
I218691	Dual Stacked Tip	1 1/2	15/16 & 1/2	23.8 & 12.7	6 1/2	16.5	0.70	0.27

Viper® SHUT OFF

General Applications:

The VIPER® Shut-Off can be used with any VIPER® Bore Tip for effective fire suppression

Construction:

- The VIPER® Shut-Off has a dual seat and dual driven shaft to offer better performance against water hammer and to enhance its durability.
- The VIPER® Shut-Off is a low maintenance product with a highly engineered polymer resin or stainless steel ball valve operated through an OPEN/CLOSE handle.

Features and Advantages:

- **The VIPER® Shut-Off** - The operation is smooth and constant allowing firefighters to open and close the valve easily.
- **VIPER® Shut-Off Stainless Steel Inlet Screen** - A stainless steel screen is mounted within the inlet to prevent materials from entering the nozzle to reduce the risk of damage or failure during operation.
- **VIPER® Shut-Off Inlet Options** - The VIPER® Shut-Off are available with the following standard threads: NST/NH Female, NPSH/IPT Female, and BSP Female.
- **Swivel inlets** – Full-time swivel inlets are provided.
- **VIPER® Shut-Off Lot Number** - Each VIPER® Shut-Off is marked with a lot number for ease of tracking.

Approvals and Standards – The VIPER® Shut Off is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Viper® SHUT OFF

VIPER® Shut Off (with Pistol Grip) Dual Seat

Nozzle Part Number	Shutoff Model Number	Inlet Female – Outlet Male		Thread	Bore Size (Orifice)		Waterway Size (in)	Weight (each)	
		(in)	(mm)		(in)	(mm)		(lbs)	(kg)
I218220	BD1560	1 - 1	25 - 25	NH	1	25.4	1	2.16	0.98
I218222	BD1560	1 - 1	25 - 25	NPSH	1	25.4	1	2.16	0.98
I218251	BD3012	1 1/2 - 1 1/2	38 - 38	NH	1	25.4	1	2.30	1.04
I218223	BD3012	1 1/2 - 1 1/2	38 - 38	NPSH	1	25.4	1	2.30	1.04
I230023	VSB70	1 1/2 - 1 1/2	38 - 38	NH	1	25.4	1 3/8	3.38	1.53
I230024	VSB70	1 1/2 - 1 1/2	38 - 38	NH	7/8	22.2	1 3/8	3.38	1.53
I230025	VSB70	1 1/2 - 1 1/2	38 - 38	NH	15/16	23.8	1 3/8	3.38	1.53

VIPER® Shut Off (without Pistol Grip) Dual Seat

Nozzle Part Number	Shutoff Model Number	Inlet Female – Outlet Male		Thread	Bore Size (Orifice)		Waterway Size (in)	Weight (each)	
		(in)	(mm)		(in)	(mm)		(lbs)	(kg)
I230021	BD1560	1 - 1	25 - 25	NH	1	25.4	1	2.00	0.90
I230022	BD3012	1 1/2 - 1 1/2	38 - 38	NH	1	25.4	1	2.10	0.95
I230035	VSB70	1 1/2 - 1 1/2	38 - 38	NH	1	25.4	1 3/8	2.90	1.32
I230036	VSB70	1 1/2 - 1 1/2	38 - 38	NH	7/8	22.2	1 3/8	2.90	1.32
I230037	VSB70	1 1/2 - 1 1/2	38 - 38	NH	15/16	23.8	1 3/8	3.00	1.36
I230097	VSB70	2 1/2 - 1 1/2	63.5 - 38	NH	1 1/8	28.6	1 3/8	3.00	1.36
I230098	VSB70	2 1/2 - 1 1/2	63.5 - 38	NH	1 3/8	34.9	1 3/8	3.00	1.36

Viper® SHUT OFF

VIPER® Shut Off (with Pistol Grip) Single Seat

Nozzle Part Number	Shutoff Model Number	Inlet Female – Outlet Male		Thread	Bore Size (Orifice)		Waterway Size (in)	Weight (each)	
		(in)	(mm)		(in)	(cm)		(lbs)	(kg)
I211275	VB3012	1 1/2 - 1 1/2	38 - 38	NPSH X NH	1	25.4	1	2.30	1.04
I217924	VB9520	1 1/2 - 1 1/2	38 - 38	NPSH X NPSH	1	25.4	1 3/8	3.70	1.68
I210570	VB9520	2 1/2 - 1 1/2	63.5 - 38	NH	1	25.4	1 3/8	4.10	1.86

VIPER® Shut Off (without Pistol Grip) Single Seat

Nozzle Part Number	Shutoff Model Number	Inlet Female – Outlet Male		Thread	Bore Size (Orifice)		Waterway Size (in)	Weight (each)	
		(in)	(mm)		(in)	(mm)		(lbs)	(kg)
I211355	VB1560	1 - 1	25 - 25	NPSH	1	25.4	1	1.70	0.77
I210595	VB3012	1 1/2 - 1 1/2	38 - 38	NPSH	1	25.4	1	1.80	0.82

VIPER® Shut Off Playpipe Single Seat

Nozzle Part Number	Shutoff Model Number	Inlet Female – Outlet Male		Thread	Bore Size (Orifice)		Waterway Size (in)	Weight (each)	
		(in)	(mm)		(in)	(mm)		(lbs)	(kg)
I211325	PLAYPIPE	2 1/2 - 1 1/2	63.5 - 38	NH	1 9/16	38.1	1 1/2	6.30	2.86

Viper® ST™

Heavy-Duty, Inexpensive Nozzles, Ideal for In-Plant Protection

Viper® ST™

General Applications:
Industrial and municipal fire protection

Construction:
- Extruded E-Lite alloy, lightweight and durable.
- Massive protective rubber bumpers.
- Polyamide fiber reinforced spinning teeth.

Features and Advantages:
- Shut-off, straight stream, narrow fog and wide fog settings.
- Low expansion foam tube attachment available.

Approvals and Standards – The VIPER® ST™ is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

VIPER® ST Nozzles

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I210528	ST2510PV NPSH	1 1/2	95	360	10.60	27	3.27	1.48
I210527	ST2510PV NST	1 1/2	95	360	10.60	27	3.27	1.48

VIPER® ST Tips Only

Nozzle Part Number	Nozzle Model Number	Swivel Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I210511	ST2510V NST	1 1/2	95	360	5.30	13	1.30	0.59
I210515	ST5016V NST	1 1/2	125	475	5.30	13	1.30	0.59

Multi-Purpose Nozzles

Viper® VTE™

General Applications:

- General plant wash-down service
- Dust control
- Wildland firefighting

Construction:

- Composite housing with brass stem and rubber bumper.
- Female NST or NPSH threads.
- Fixed teeth.
- Available in Red or Black colors.

Features and Advantages:

- **Adjustable Flow Control** – Twisting nozzle adjusts spray pattern from full stream to misting fog.
- **Impact Resistant** – Rubber bumpers protect nozzle from damage if dropped or dragged.
- **Lightweight** – Compact design reduces worker fatigue.

Approvals and Standards – The VIPER® VTE™ is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Nozzle Part Number	Nozzle Model Number	Rigid Inlet (In)	Color	Nozzle Flow		Length		Weight (each)	
				(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I150006C	VTE-1550	1 NST	Red	30	125	5.30	13	0.44	0.20
I150004C	VTE-1550	1 NPSH	Red	30	125	5.30	13	0.44	0.20
I150005C	VTE-1550	1 NST	Black	30	125	5.30	13	0.44	0.20
I150034	VTE-2510	1 1/2 NST	Red	95	360	5.90	15	0.66	0.30
I218950	VTE-2510	1 1/2 NPSH	Red	95	360	5.90	15	0.66	0.30
I150015	VTE-2510	1 1/2 NST	Black	95	360	5.90	15	0.66	0.30

Viper® STI™

Heavy-Duty, Inexpensive Nozzles

Viper® STI™

General Applications:

- Municipal and industrial fire protection
- Wildland Firefighting

Construction:

- Extruded E-Lite alloy, lightweight and durable.
- Molded rubber teeth.

Features and Advantages:

- Constant gallonage in all positions; straight stream, narrow fog and wide fog settings.
- Raised lug to indicate 30° fog (narrow fog).
- Flush without shutting down nozzle.
- Low expansion foam tube attachment available.
- Twist shutoff to straight stream to fog.

Approvals and Standards – The VIPER® STI™ is National Fire Protection Association (NFPA) 1964 compliant and is manufactured in an ISO 9001 accredited facility. European Standards (EN) 15182-1 and EN15182-2 type 3 Certificates are available by request.

Nozzle Part Number	Nozzle Model Number	Rigid Inlet (In)	Nozzle Flow		Length		Weight (each)	
			(gpm)	(lpm)	(in)	(cm)	(lbs)	(kg)
I230047	STI30V NST	1	30	110	5.30	13	1.17	0.53
I230171	STI30V NPSH	1	30	110	5.30	13	1.17	0.53

Viper® FOREST™

General Applications:
- Wildland firefighting

Construction:
- Anodized Aluminum

Threads:
- FN1-1030-B – NPSH
- FN1-1030 – NH / NST
- FN15-2060 – NH / NST
- FN15-2090 – NH / NST

Features and Advantages:
- Adjustable twist nozzle shifts smoothly between a focused stream and a fine fog mist, operating across two flow modes—low and high—for maximum control.

Approvals and Standards – Meets Forest Service Specifications 5100-239c, where applicable

NSN : 4210-01-165-6603 or 4210-01-167-1123

Nozzle Part Number	Description	Flow Range (gpm)	Bumper	Length (in)	Weight (lbs)
FN1-1030	1" NH Dual Range Forestry Nozzle	10 / 30	None	5	0.60
FN1-1030-B	1" NH Dual Range Forestry Nozzle	10 / 30	Rubber	5	0.85
FN15-2060	11/2" NH Dual Range Forestry Nozzle	20 / 60	Rubber	5	0.85
FN15-2090	1 1/2" NH Dual Range Forestry Nozzle	20 / 90	Rubber	5	0.85

GENFO™ Evo Quick-Connect

Premium Quality Flexible Fire Extinguisher Backpack

GENFO™ Evo Quick-Connect

- 5 gallons (19 L) flexible backpack water extinguisher
- Thermo-welded canvas flame retardant M2 tank
- Excellent to control, mop up and extinguish grass, brush and forest fires
- No leak Quick-Connect system — plug and unplug in one easy action

Capacity – 5 gallons (19 lts)

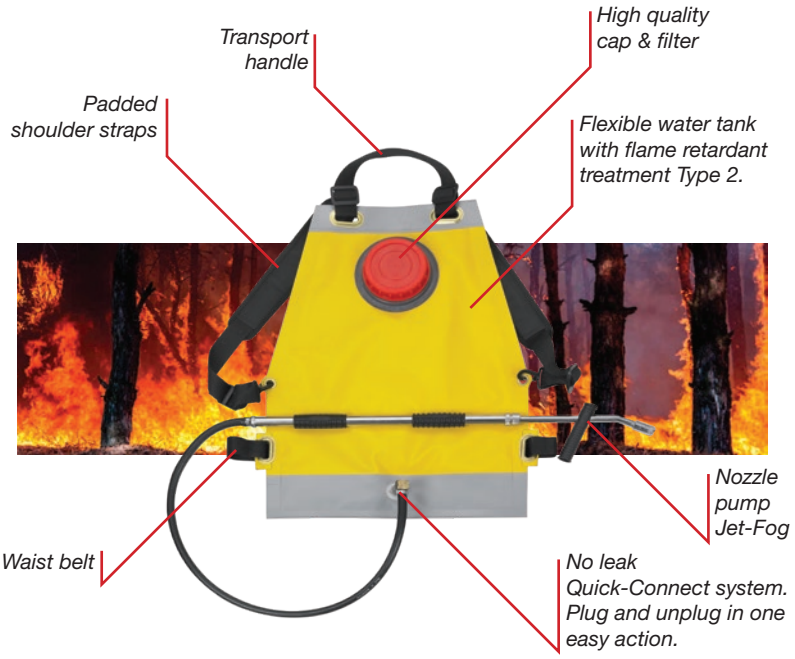
Construction – Thermo-welded flexible water tank, made of PVC-coated polyester fabric with a 2.03 oz/sq (620 g/m2) flame retardant protective treatment. Durable collapsible reservoir lacquered on both sides. Flexible horizontal baffle inside to reduce shifting. Thermo welded seams for strength and durability. Ideal where a fireproof fabric is needed.

Color – Bright Yellow is the standard color

Dimensions – 19.3 x 25.6 inch (490 x 650 mm)

Inlet Diameter – Large 3.94 inch (100 mm) polymer cap for easy refill

Weight – 4.4 lb (2kg)

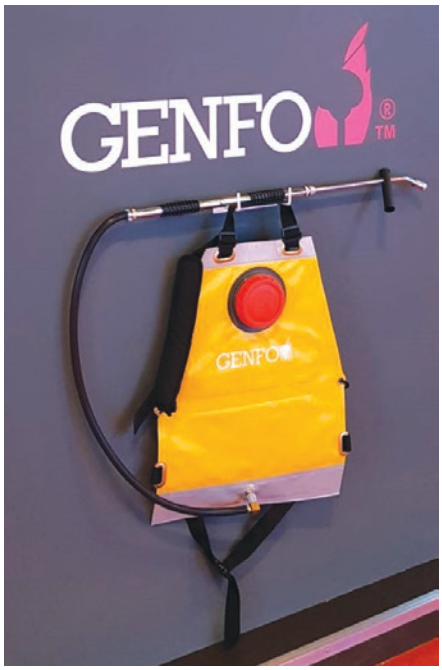


Nozzle

Pump-Nozzle Action – Two stroke piston hand pump nozzle made of chrome plated brass with stainless steel filter on suction inlet. The nozzle tip adjusts from straight stream (jet) to spray (fog). Easy 'no tool' maintenance.

Effective Reach –
Straight stream: > 40 ft (12m)
Fog: > 10 ft (3m)

Flow – 0.03 Gal. (120cc) / stroke



Accessories *(not included)*

Foam Tube (expansion ratio 1:8)

Polyamide pack for storage & transport

GENFO™ EVO Quick-Connect

Backpack Part Number	Backpack Model Number	Nozzle Flow	Size	Weight (each)	
				(lbs)	(kg)
I200547	EVO QC	0.03 gpm	19.3 x 25.6 inches	4.40	2.00
I200008	Foam Tube	1:8 exp. ratio	12 inches length	0.20	0.09

Cautionary Statement

All Products sold and distributed by the Kuriyama Fire Products division of Kuriyama of America, Inc. are commodities and are sold based on each product's ability to perform within its published specifications. The Products are not sold for particular purposes, uses or applications. Purchasers and users are solely responsible for determining whether the Products are suitable for the purchaser's and user's intended purposes, uses or applications. Purchasers and users should conduct their own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories in order to determine whether the Products are suitable or proper for any intended purposes, uses or applications.

Purchasers and users shall follow all instructions contained in KFP's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including any hoses, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened to avoid leakage, prevent personal injury or property damage, and for general safety purposes.

Purchasers or users of the Products should frequently and consistently inspect the Products, including examining the tube and cover, conditions of the hose or tubing, and identifying, repairing or replacing all sections showing cracking, blistering, separations, internal or external abrasions, leaking or slipped couplings or connections, followed by conducting a proper proof test.

Kuriyama Fire Products Limited Warranty

Kuriyama Fire Products conform to NFPA standards. KFP warrants to the purchasers of its Products that the following KFP hoses will be free from defects in material and workmanship for ten (10) years from the date of sale by KFP: Jafrib, JAFx4, ARMTEX One, ARMTEX HP, double jacket ARMTEX Attack, Attack Lite, Jafline HD, Jafline and single jacket KS6. The Forest-Lite Type 1, Type 2, Mop Up, Armored Reel and FS-BLK suction hoses will be free from defects in material and workmanship for (1) one year from the date of sale by KFP. KFP nozzles will be free from defects in material and workmanship for five (5) years from the date of sale by KFP.

THIS LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

KFP's limited warranty does not apply to or cover tears or punctures caused by dragging or catching on items on the fire ground during or after suppression or training activities. It also does not apply to normal wear and tear, abrasion, snags, tears, cuts, punctures, holes, burning, melting, chemical attack or contamination, or any damage resulting from misuse, abuse, accident, mistreatment, or neglect that may leave the fire hose unfit for service. KFP's limited warranty does not apply to any Products that have been altered, modified, repaired or reworked by anyone other than KFP or that have been used in any manner that is inconsistent with the above Cautionary Statement or any instructions or specifications provided with or for the Product.

If a Product is defective, KFP shall, at its discretion, either: (1) refund the purchase price paid to KFP for the defective Products, on a non-prorated basis; (2) repair any defective Products or defective part; or (3) replace any defective Product upon its authorized return to KFP.

Limitation of Liability and Exclusion of Remedies

IN ALL SITUATIONS, THE LIABILITY OF KFP AND KURIYAMA OF AMERICA AND THE REMEDY OF ANY CUSTOMER OR USER OF THE PRODUCTS SHALL BE STRICTLY AND EXCLUSIVELY LIMITED TO THE REFUND, REPAIR OR REPLACEMENT OF THE PRODUCTS AS STATED ABOVE.

IN NO EVENT SHALL KFP, KURIYAMA OF AMERICA, ITS AFFILIATES OR ANY MANUFACTURER OF THE PRODUCTS BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, WHETHER OR NOT CAUSED BY OR RESULTING FROM ANY NEGLIGENCE BY KFP AND/OR THE PRODUCT MANUFACTURER.

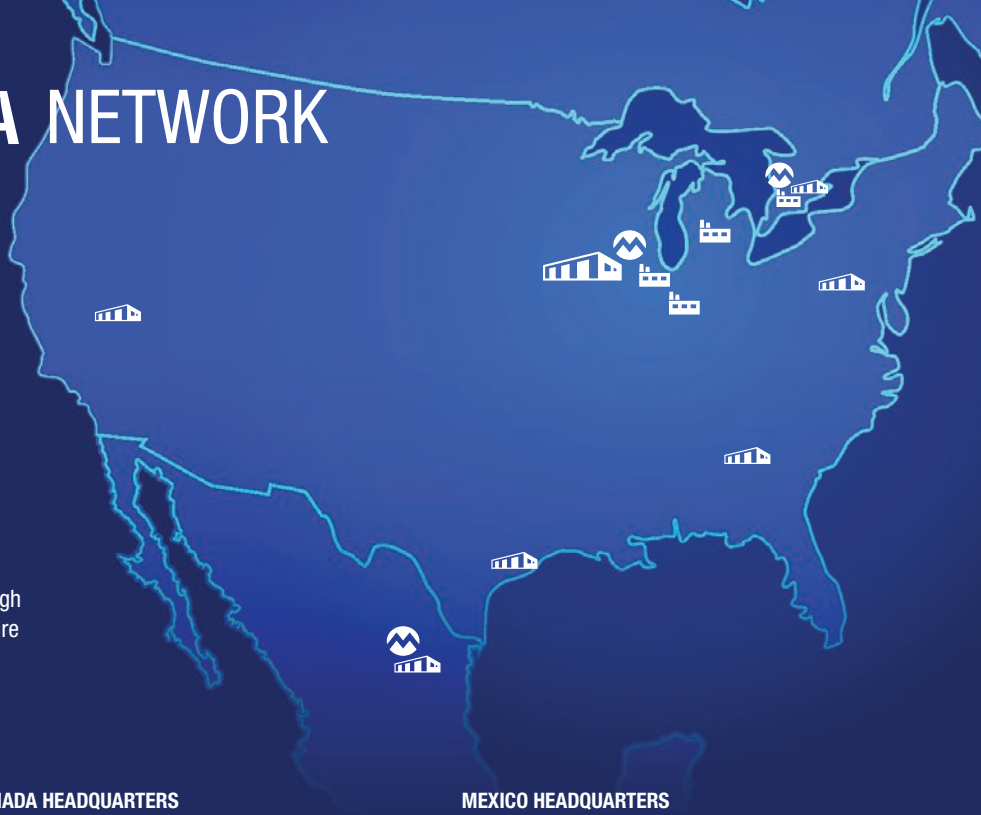
07/2020 REV

THE KURIYAMA NETWORK

Kuriyama's North American Operations comprise an integrated network of manufacturing and distribution facilities strategically located across the continent. This footprint supports a wide range of industrial and hydraulic hose and couplings products, and the capability to engineer custom solutions for demanding applications.

The Kuriyama Distribution Network serves the United States through five primary distribution centers totaling more than 700,000 square feet, including a state-of-the-art 329,000 square foot Central Distribution Center in Huntley, Illinois.

Kuriyama Engineered Services includes seven North American manufacturing and compounding facilities, producing thermoplastic industrial hose, hydraulic hose, high pressure spray hose, metal hose assemblies, NFPA 1961 fire hose and engineered tubing.



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(231) 779-4399

DISTRIBUTION CENTERS AND WAREHOUSES

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WEST COAST WAREHOUSE – RENO
12910 Old Virginia Road,
Suite 100
Reno, NV 89521
(847) 707-6459

SOUTHWEST WAREHOUSE – HOUSTON
200 Portwall Street, Suite 100
Houston, TX 77029
(847) 707-6459

NORTHEAST WAREHOUSE – CARLYLE
1600 Distribution Drive,
Building B
Carlyle, PA 17013
(847) 707-6459

SOUTHEAST WAREHOUSE – ACWORTH
FORTNEY SALES CO., INC.
4221 Cantrell Road NW
Acworth, GA 30101
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