

# **DATA SHEET**

# IMPULSE ACTUATED HRD SUPPRESSOR AND SRD CHEMICAL ISOLATOR





**HRD Suppressor** 

#### **Features**

- Actuator assembly is driven by a linear actuator that is globally free of shipping restrictions
- High Rate Discharge (HRD) suppressors disperse agent rapidly limiting deflagrations to safe pressures protecting personnel and equipment
- Standard Rate Discharge (SRD) isolators disperse agent both rapidly and sustained to establish a chemical barrier which prevents flame propagation through interconnected pipelines
- Actuator assembly has a 10 year service life reducing total cost of ownership
- Field refurbishable
- Pressure gauge standard
- Optional features include mechanical lockout, ball valve lockout, and low pressure switch

#### General

The patented HRD Suppressor is specifically designed to reduce the time required to inject and disperse the agent, suppressing combustible dust deflagrations before they generate destructive pressure. Impulse HRD suppressors are available in five sizes ranging from 2.5 to 30 liter. See Ordering Information.

The SRD Isolator is available in a 9L size and is used for chemical explosion isolation. Chemical isolation is often used in conjunction with explosion suppression and explosion venting applications to protect interconnected vessels.

### **Specifications**

Approvals	NFPA 69 compliant <sup>1,2</sup>			
Operating	-30°F to 140°F			
Temperature	(-34°C to 60°C)			
	Pressure Vessel:			
	High grade carbon steel with			
Materials of Construction	white baked urethane enamel			
	Initiator/Actuator Assemblies:			
	SST			
	Pressure Gauge: SST			
Finish	All exposed surfaces: White baked			
	urethane enamel paint			
	Supervisory input contact (can be			
	wired NO or NC)			
Ontional	Set Pressure:			
Optional Low Pressure Switch	SRD = 400 psig			
	HRD = 700 psig			
	Electrical Connection: ½" NPT			
	Male			
	Pressure Connection:			
	Inlet ¼" NPT Female			
1				

<sup>&</sup>lt;sup>1</sup> HRD containers comply with ASME Boiler and Pressure Vessel Code.

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<sup>&</sup>lt;sup>2</sup> SRD containers are offered as either compliant with DOT regulations or ASME Boiler and Pressure Vessel Code.

# **Ordering Information**

Standard Container Sizes							
Part Number	Description						
E70-087	2.5 Liter Impulse HRD (ASME)						
E70-088	5 Liter Impulse HRD (ASME)						
E70-089	10 Liter Impulse HRD (ASME)						
E70-090	20 Liter Impulse HRD (ASME)						
E70-091	30 Liter Impulse HRD (ASME)						
E70-084	9 Liter Impulse SRD (DOT)						
E70-093	9 Liter Impulse SRD (ASME)						
Note: All ASME containers meet KGS and ROC requirements							

Container Retrofit Kits					
Part Number	Description				
E70-092*	4" Impulse HRD				
E70-085*	1" Impulse SRD				

<sup>\*</sup> Reftrofit of existing installations are subject to Fike EP Applications review of sizing calculations and container verification via inspection tool performed by a Fike trained service technician.

Post-activation Refurbishment Kits							
Post-activation Returbishment Rits							
Part Number	Description						
E85-056	4" Impulse HRD, spreader nozzle and no nozzle						
E85-057	4" Impulse HRD, hygienic no nozzle						
E85-058	4" Impulse HRD, telescopic nozzle						
E85-059	4" Impulse HRD, hygienic telescopic nozzle						
E85-060	1" Impulse SRD						

#### **Suppressant Agents**

Fike offers a variety of environmentally safe suppressant agents to meet your specific application. Agents include Sodium Bicarbonate (available in standard or food grade), Monoammonium Phosphate, and a water-based agent.

## **Spreader Nozzles**

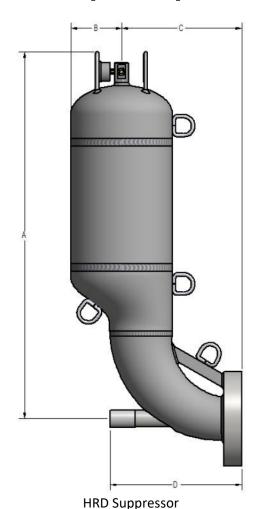
The HRD and SRD can be used with all of Fike's standard and telescopic spreader nozzles, except the Extended Duration (XD) nozzle. The spreader nozzles are designed to provide the widest possible dispersion of the suppressant agent. Refer to the compatible spreader nozzle data sheets for specific information.

#### **Dimensions**

The overall dimensions of each container is provided in the following table. All container specifications are subject to change without notice.

Туре	Size (I)	Dimensions in (cm)				Mtg.	Empty Weight
		Α	В	С	D	Flange	lbs. (kg)
HRD <sup>1</sup> 2.5	2.5	12.06	2.94	7.62	13.65	4"	67
	2.5	(30.6)	(7.5)	(19.4)	(34.7)		(30.4)
HRD <sup>1</sup>	HRD¹ 5	16.07	3.31	10.62	13.90		95
TIKU	3	(40.8)	(8.4)	(26.9)	(35.3)		(43.1)
HRD <sup>1</sup>	10	25.82	3.31	10.62	13.90	ANSI 300	118
UKD   10	10	(65.6)	(8.4)	(26.9)	(35.3)		(53.5)
HRD <sup>1</sup>	20	30.58	5.38	12.69	13.90	300	206
TKD   2	20	(77.7)	(13.7)	(32.2)	(35.3)		(93.4)
HRD <sup>1</sup> 30	20	38.83	5.38	12.69	13.90		220
	30	(98.6)	(13.7)	(32.2)	(35.3)		(99.8)
SRD <sup>1</sup>	9	23.48	9.22	NA	NA	NA	37
		(59.6)	(23.4)				(16.8)
SRD <sup>2</sup>	9	21.75	7.50	NA	NA	NA	34
		(55.2)	(19.0)				(15.4)

<sup>&</sup>lt;sup>1</sup> ASME design code. <sup>2</sup> DOT design code.





**SRD** Isolator

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