

# Series LF8 / 8

## Hose Connection Vacuum Breakers

Sizes: 3/4"



**LF8A**  
Non-Removable Model



**LFNF8**  
Permits Manual Drain



**LF8**



**8**



**8B**



**8FR**

### Features

- Brass body (all models except 8P)
- Stainless steel working parts for longevity
- Durable rubber diaphragm and disc for consistent positive seating

### Pressure-Temperature

Maximum Working Pressure: 125psi  
(8.6 bar)  
Maximum Temperature: 180°F (82°C)

### LF8

#### LEAD FREE

Series LF8 is a line of unique vacuum breakers specially made to permit the attachment of portable hoses to hose thread faucets. Designed to prevent the flow of contaminated water back into the potable water supply, these devices require no plumbing changes and screw directly onto sill cocks. The Series LF8 features Lead Free\* construction to comply with Lead Free\* installation requirements.

Series LF8 can be used on a wide variety of installations, such as service sinks, swimming pools, photo developing tanks, laundry tubs, wash racks, dairy barns, marinas and general outside gardening uses.

### Materials

- Copper silicon alloy body (all models except 8P, which is plastic)

### Models

**LF8A** – Furnished with exclusive “Non-Removable” feature and standardly equipped to allow sill cock to be drained.

**Note:** Device should only be installed on approved sill cocks containing at least four full threads. Non-removable once installed.

**LF8** – Similar to the 8A except it is furnished without the “Non-Removable” or draining feature. Secured with Allen head set screw.

**LF8B** – Furnished with break-away set screw to provide a tamper-resistant installation. Standardly equipped to allow sill cock to be drained.

**LFNF8** – Especially made for wall and yard hydrants. Permits manual draining for freezing conditions.

**8P** – Furnished with exclusive patented “Non-Removable” feature. Standardly equipped to allow sill cock to be drained. Constructed of durable, corrosion-resistant, reinforced thermoplastic. Tamper-proof feature.

**LF8AC, LF8C, or LF8C** – Same as above but furnished with chrome finish.

**LF8FR** – With freeze relief feature.

### Approvals



Series LF8, LF8A, LF8B, 8P, LF8FR and LFNF8 are listed by IAPMO.

**\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

# 8

Series 8 is a line of unique vacuum breakers specially made to permit the attachment of portable hoses to hose thread faucets. Designed to prevent the flow of contaminated water back into the potable water supply, these devices require no plumbing changes, and screw directly onto a sill cock.

## For Use in Non-Potable Applications

Series 8 is designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as service sinks, swimming pools, photo developing tanks, laundry tubs, wash racks, dairy barns, marinas and general outside gardening uses.

## Models

**8A** – Furnished with exclusive “Non-Removable” feature and standardly equipped to allow sill cock to be drained.

**Note:** Device should only be installed on approved sill cocks containing at least four full threads. Non-removable once installed.

**8** – Similar to the 8A except it is furnished without the “Non-Removable” or draining feature. Secured with Allen head set screw.

**8B** – Furnished with break-away set screw to provide a tamper-resistant installation. Standardly equipped to allow sill cock to be drained.

**NF8** – Especially made for wall and yard hydrants. Permits manual draining for freezing conditions.

**8AC, 8C, 8BC or NF8C** – Same as above but furnished with chrome finish.

**8FR** – With freeze relief feature. Protects the 8FR from freeze damage.

## Approvals

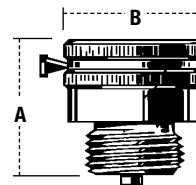


Series 8, 8A, 8B, 8P, 8FR and NF8 are listed by IAPMO.

## Dimensions and Weights

### LF8 / 8

MODEL	SIZE	DIMENSIONS				WEIGHT		
		in.	A in.	mm	B in.	mm	oz.	gm.
LF8, LF8C, LF8B, LF8BC	8, 8C, 8B, 8BC	¾ HT	1½	38	1⅞	35	4.0	113.4
LF8A, LF8AC	8A, 8AC	¾ HT	1½	38	1½	38	4.0	113.4
LFNF8	NF8, NF8C	¾ HT	2	51	1½	38	5.3	151.2
8P		¾ HT	1¾	38	1⅞	35	1.5	42.5
LF8FR	8FR	¾ HT	1¾	38	1¾	38	7.0	200.0



# Series LF800M4QT / 800M4QT

## Pressure Vacuum Breakers

Sizes: 1/2" – 2" (15 – 50mm)



1/2" - 3/4" LF800M4QT



1" - 2" LF800M4QT

### Features

- Replaceable plastic seat
- Easy maintenance of internal parts
- Acetal bonnet acts as “freeze plug” to prevent body damage
- O-ring bonnet seal for less possibility of fouling
- Silicone seat disc for durability
- Test cocks positioned for easy testing and winterization
- Compact space saving design
- Standardly equipped with tee handle quarter turn ball valve shutoffs 1/2" – 1". The 1 1/4" - 2" feature lever handles.
- No special tools required for servicing

### Pressure-Temperature

Temperature Range: 33°F – 140°F  
(0.5°C – 60°C)

Maximum Working Pressure: 150psi  
(10.3 bar)

### LF800M4QT

#### LEAD FREE

Series LF800M4QT is designed to prevent backsiphonage of contaminated water into a potable water supply. The valve is ideally suitable for irrigation systems, industrial process water systems and other continuous pressure piping system applications where the water enters the equipment at or below its flood rim. The disc float and check valve are suitable for temperatures up to 140°F. The resilient sealing float O-ring and seal check disc are silicone rubber which is resistant to heat, shock and chemical attack. The LF800M4QT features Lead Free\* construction to comply with Lead Free\* installation requirements.

#### Materials

- Springs: Stainless Steel
- Bonnet: Celcon®
- Vent Disc: Silicone Rubber
- Disc Holder Float: Polypropylene
- Check Valve Disc: Silicone Rubber
- Check Valve Seat: Noryl® Plastic
- Body: Lead Free\* Cast Copper Silicon Alloy

#### Approvals



Approved by the foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California, Manual Section 10. (1/2" – 2" LF800M4QT only)  
CSA (1/2" – 2" LF800M4QT only)

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

### 800M4QT

#### For Use in Non-Potable Applications

Series 800M4QT are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. The disc float and check valve are suitable for temperatures up to 140°F. The resilient sealing float o-ring and seal check disc are silicone rubber which is resistant to heat, shock and chemical attack.

#### Materials

- Springs: Stainless Steel
- Bonnet: Celcon®
- Vent Disc: Silicone Rubber
- Disc Holder Float: Polypropylene
- Check Valve Disc: Silicone Rubber
- Check Valve Seat: Noryl® Plastic
- Body: Bronze

#### Approvals



Approved by the foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. (1/2" – 2" 800M4QT only)  
CSA (1/2" – 2" 800M4QT only)

#### Models

##### Prefix

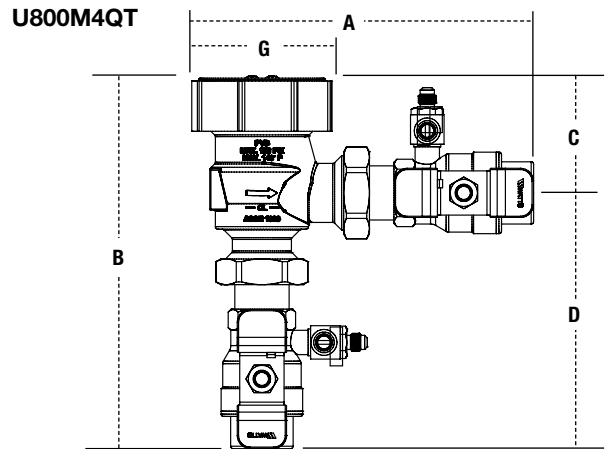
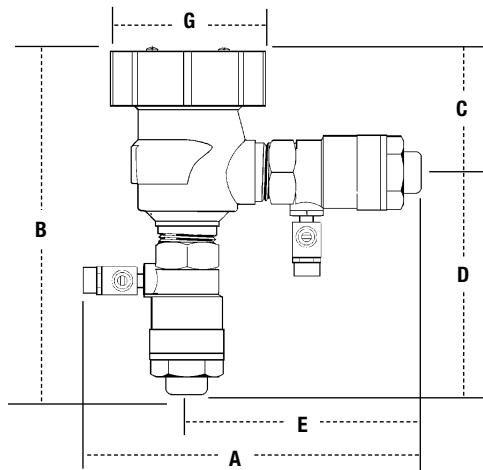
U – union connections (3/4" - 1" only)

##### Suffix

QC – Quick-Connect Adapters

SH – Stainless Steel Ball Valve Handles

## Dimensions and Weights



### LF800M4QT / 800M4QT / 800M4QT

MODEL	SIZE	DIMENSIONS										WEIGHT			
		A		B		C		D		E		G		lbs.	kg.
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
LF800M4QT / 800M4QT	1/2	6 1/8	156	6 1/4	159	2 9/16	65	3 1/16	94	3 7/8	98	2 1/4	57	4	1.8
LF800M4QT / 800M4QT	3/4	6 1/2	165	6 1/2	165	2 9/16	65	3 5/16	100	4 1/8	105	2 1/4	57	4	1.8
LF800M4QT / 800M4QT	1	7 1/2	191	7 1/2	191	2 3/4	70	4 3/4	121	4 7/8	124	3 7/16	87	6	2.7
LF800M4QT / 800M4QT	1 1/4	8 7/8	225	9	229	3 1/4	83	5 3/4	146	6 1/8	156	5	127	11	5.0
LF800M4QT / 800M4QT	1 1/2	9 1/4	235	9 1/2	241	3 1/4	83	6 1/4	159	6 3/8	162	5	127	14	6.3
LF800M4QT / 800M4QT	2	10 5/8	270	9 5/8	245	3 1/4	83	6 3/8	162	7	178	5	127	19	8.6
U800M4QT	3/4	6 3/8	163	7 9/16	192	2 1/8	55	5 7/16	138	—	—	2 1/4	57	4	1.8
U800M4QT	1	8 5/16	211	9	229	2 13/16	71	6 3/16	158	—	—	3 7/16	87	6	2.7
**800M4QT-QC	1/2	7 7/8	200	8	203	2 13/16	71	5 7/16	138	5 5/8	144	3 7/16	87	4.5	2.0
**800M4QT-QC	3/4	8 1/2	216	8 1/2	216	2 13/16	71	5 11/16	144	6 1/8	156	3 7/16	87	4.7	2.1
**800M4QT-QC	1	9 1/2	241	9 1/2	241	2 13/16	71	6 3/4	171	6 7/8	175	3 7/16	87	6.6	3.0

\*\*QC models have quick-connect adapters which attach separately to the approved 800M4QT.

# Series LF800M4FR / 800M4FR

## Freeze-Resistant Pressure Vacuum Breakers

Sizes: 1/2" – 2" (15 – 50mm)



LF800M4FR



LF800M4FR

### Features

- Unique built-in relief valve relieves pressure caused by ice formation
- Replaceable plastic seat
- Easy maintenance of internal parts
- O-ring bonnet seal for less possibility of fouling
- Silicone seat disc for durability
- Test cocks positioned for easy testing and winterization
- Compact space saving design
- Standardly equipped with tee handle quarter turn ball valveshutoffs 1/2" – 1". The 1 1/4" - 2" features lever handles
- No special tools required for servicing

### Pressure-Temperature

Temperature Range: 33°F – 140°F  
(0.5°C – 60°C)  
Maximum Working Pressure: 150psi  
(10.3 bar)

### LF800M4FR

#### LEAD FREE

Series LF800M4FR is designed to prevent backsiphonage of contaminated water under continuous pressure into the potable water supply. Its superior design protects the valve body and internal components during sudden freeze conditions. Water inside the PVB freezes from the outside-inward.

As the ice forms and expands, causing a buildup of pressure, the LF800M4FR relieves the pressure through a unique relief valve built into the plastic float.

Test cocks are positioned at the lowest point of the valve for winterization draining. The LF800M4FR is reusable with the relief valve designed to automatically re-seat. It will not discharge through the relief valve during normal operation. (The built-in relief valve is not designed to provide freeze protection for the entire irrigation system.) The LF800M4FR features Lead Free\* construction to comply with Lead Free\* installation requirements.

#### Materials

- Springs: Stainless Steel
- Bonnet: Celcon®
- Vent Disc: Silicone Rubber
- Disc Holder Float: Polypropylene
- Check Valve Disc: Silicone Rubber
- Check Valve Seat: Noryl® Plastic
- Body: Lead Free\* Cast Copper Silicon Alloy

#### Approvals



IAMPO

Approved by the foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California, Manual Section 10.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

### 800M4FR

#### For Use in Non-Potable Applications

Series 800M4FR is designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. Its superior design protects the valve body and internal components during sudden freeze conditions. Water inside the PVB freezes from the outside-inward.

#### Materials

- Springs: Stainless Steel
- Bonnet: Celcon®
- Vent Disc: Silicone Rubber
- Disc Holder Float: Polypropylene
- Check Valve Disc: Silicone Rubber
- Check Valve Seat: Noryl® Plastic
- Body: Bronze

#### Approvals



IAMPO

Approved by the foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California, Manual Section 10. QC models are not ASSE 1020 approved.

#### Suffix

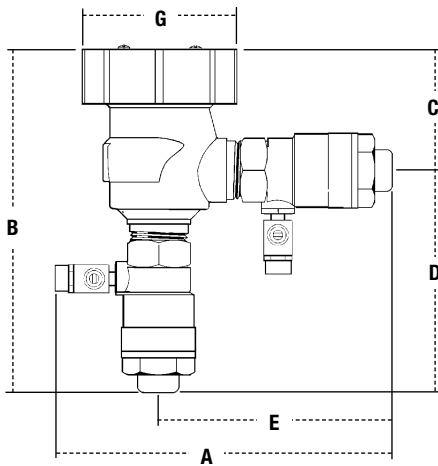
- QC – Quick-Connect Adapters
- SH – Stainless Steel Ball Valve Handles

#### Models

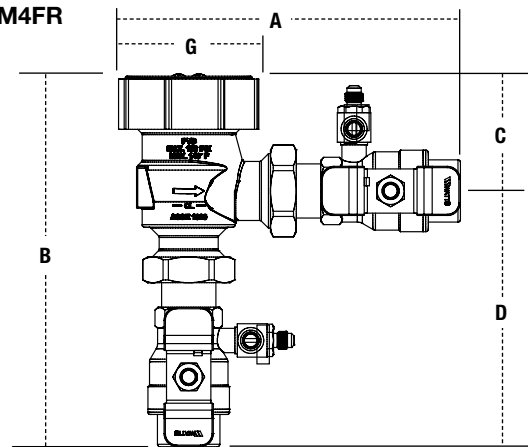
##### Prefix

U – union connections (3/4" - 1" only)

## Dimensions and Weights



U800M4FR



### LF800M4FR / 800M4FR / U800M4FRQC

MODEL	SIZE		DIMENSIONS										WEIGHT	
	in.	A in. mm	B in. mm	C in. mm	D in. mm	E in. mm	G in. mm	lbs.	kg.					
LF800M4FR / 800M4FR	1/2	6 1/8 156	6 1/4 159	2 9/16 65	3 1/16 94	3 7/8 98	2 1/4 57	4	1.8					
LF800M4FR / 800M4FR	3/4	6 1/2 165	6 1/2 165	2 9/16 65	3 15/16 100	4 1/8 105	2 1/4 57	4	1.8					
LF800M4FR / 800M4FR	1	7 1/2 191	7 1/2 191	2 3/4 70	4 3/4 121	4 7/8 124	3 7/16 87	6	2.7					
LF800M4FR / 800M4FR	1 1/4	8 7/8 225	9 229	3 1/4 83	5 3/4 146	6 1/8 156	5 127	11	5.0					
LF800M4FR / 800M4FR	1 1/2	9 1/4 235	9 1/2 241	3 1/4 83	6 1/4 159	6 3/8 162	5 127	14	6.3					
LF800M4FR / 800M4FR	2	10 5/8 270	9 5/8 245	3 1/4 83	6 3/8 162	7 178	5 127	19	8.6					
U800M4FR	3/4	6 3/8 163	7 9/16 192	2 1/8 55	5 7/16 138	- -	2 1/4 57	4	1.8					
U800M4FR	1	8 5/16 211	9 229	2 13/16 71	6 3/16 158	- -	3 7/16 87	6	2.7					
800M4FRQC	1/2	7 7/8 199	8 203	2 13/16 71	5 7/16 138	5 5/8 144	3 7/16 87	4.5	2.0					
800M4FRQC	3/4	8 1/2 216	8 1/2 216	2 13/16 71	5 11/16 144	6 1/8 156	3 7/16 87	4.7	2.1					
800M4FRQC	1	9 1/2 241	9 1/2 241	2 13/16 71	6 3/4 171	6 7/8 175	3 7/16 87	6.6	3.0					

# Series LF008PCQT

## Health Hazard, Anti-Siphon, Spill-Resistant Backflow Preventer

Sizes: 3/8" – 1" (10 – 25mm)



LF008PCQT

### Features

- Standardly supplied with internal polymer coating
- Standardly supplied with Tee handles
- Available less Tee handle with stem wrench flats. For use where space is limited
- Available in left-handed or right-handed outlet
- Spill-resistant design for indoor use
- Affordable design
- Modular cartridge for ease of service
- Vent uses an O-ring for reliable operation
- Compact space saving design
- Satin chrome finish available

### Pressure-Temperature

Temperature Range: 33°F – 180°F  
(0.5°C – 83°C)

Maximum Working Pressure: 150psi  
(10.3 bar)

### LF008PCQT

#### LEAD FREE

Series LF008PCQT is designed for indoor point-of-use applications to prevent backsiphonage of contaminated water back into the potable water supply. Separation of the water supply from the air inlet is accomplished by means of a diaphragm seal. This feature protects against any spillage during start-up or operation. The LF008PCQT features Lead Free\* construction to comply with Lead Free\* installation requirements.

### Materials

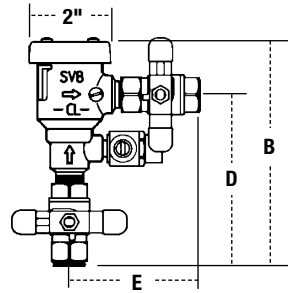
- Springs: Stainless steel
- Bonnet: PPO
- Vent Disc: EPDM
- Disc Holder: PPO
- Check Disc: Silicone rubber
- Body: Lead Free\* cast copper silicon alloy

### Approvals



\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

## Dimensions and Weights



### LF008PCQT

SIZE		DIMENSIONS				WEIGHT		
	B		D		E			
<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>lbs.</i>	<i>kgs.</i>
$\frac{3}{8}$	$5\frac{1}{2}$	140	$3\frac{15}{16}$	100	$3\frac{3}{8}$	79	1.6	.73
$\frac{1}{2}$	$5\frac{3}{4}$	146	$4\frac{3}{16}$	106	$3\frac{3}{8}$	86	1.7	.77
$\frac{3}{4}$	7	178	$4\frac{5}{8}$	117	$4\frac{1}{2}$	114	3.8	1.72
1	$7\frac{1}{2}$	191	$5\frac{1}{8}$	130	$4\frac{7}{8}$	124	4.8	2.18

# Series LF288A, LF289, LFN388 and 188A Anti-Siphon Vacuum Breakers

Sizes: 1/4" – 3" (6 – 80mm)



LF289



LFN388



188A

## Features

- Spring loaded vent for continuous pressure use
- Patented design
- Spill-resistant diaphragm design for indoor use
- Affordable design
- Modular cartridge for ease of service
- Vent uses an O-ring for reliable operation
- Compact space saving design
- Meets ASSE 1001 (3/8" and 1/2" only)
- Optional satin chrome finish
- Full size orifice for maximum flow
- Lightweight disc assembly prevents spilling under all rates of flow

## Pressure-Temperature

### LF288A

Temperature Range: 180°F (82°C)  
Maximum Working Pressure: 125psi  
(8.6 bar)

### LF289

Temperature Range: 33°F - 180°F  
(0.5°C - 82°C)  
Maximum Pressure: 150psi  
(10.3 bar)

### LFN388 and 188A

Maximum Temperature: 180°F (82°C)  
Maximum Working Pressure: 125psi  
(8.6 bar)

## LF288A, LF289, and LFN388

### LEAD FREE

Series LF288A, LF289, and LFN388 represent a complete line of vacuum breakers designed to prevent backsiphonage of contaminated water into a potable water supply.

They feature a lightweight, durable "disc float" suitable for temperatures up to 180°F (82°C) which closes the atmospheric vent to prevent spilling under all rates of flow. Therefore, they are ideally recommended for low flow installations such as laboratory equipment which use such a small amount of water. They also contain a durable silicone disc which has high heat and water hammer shock resistance and assures tight seating with the lightest of seating contact. The LF288A, LF289, and LFN388 feature Lead Free\* construction to comply with Lead Free\* installation requirements.

## 188A

### For Use in Non-Potable Applications

Series 188A is designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. Features a lightweight, durable "disc float" suitable for temperatures up to 180°F (82°C) which closes the atmospheric vent to prevent spilling under all rates of flow.

## Materials

### LF288A 1/4" - 3" (6 – 80mm)

- Body: Lead Free\* cast silicon copper alloy
- Disc: Silicone

### LF289 3/8" - 3/4" (10 – 20mm)

- Springs: Stainless Steel
- Bonnet: PPO
- Vent Disc: EPDM
- Disc Holder: PPO
- Check Disc: Silicone Rubber
- Body: Lead Free\* Bronze cast silicon copper alloy
- Diaphragm: EPDM

### LFN388 1/4" - 3/8" (6 – 10mm)

- Body: Lead Free\* cast copper silicon alloy

### 188A 3/4" - 2" (20 – 50mm)

- Body: Brass
- Internal Trim: Bronze
- Seat Disc: Silicone
- Disc Float: Plastic

## Models

**LF288A-C** – Lead Free\* brass body and polished chrome finish

**LFN388-SC** – Satin Chrome

**LFN388-C** – Polished Chrome

**LFN388-DM** – Deck Mount

## Approvals

### Model LF288A



Certified thru 1" CSA

### Model LF289



3/8" and 1/2" only

### Model LFN388



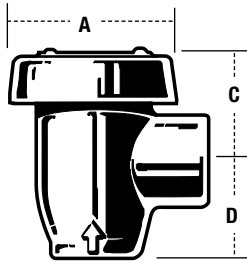
### Model 188A



Approved by the city of Los Angeles

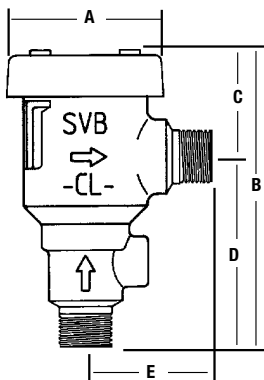
\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

## Dimensions and Weights



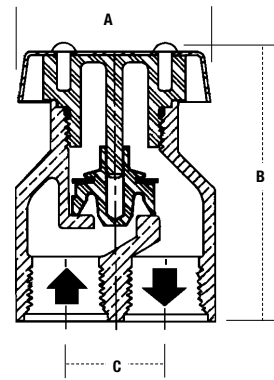
### LF288A

SIZE		DIMENSIONS								WEIGHT	
in.	A		B		C		D		oz.	gm.	
	in.	mm	in.	mm	in.	mm	in.	mm			
1/4	1 3/4	44	2 1/4	57	1 1/4	32	1	25	6	170	
3/8	1 3/4	44	2 1/4	57	1 1/4	32	1	25	6	170	
1/2	2	50	2 3/4	70	1 1/2	38	1 1/4	32	8	227	
3/4	2 1/4	57	3	76	1 1/2	38	1 1/2	38	18	510	
1	2 7/8	73	3 5/8	92	1 7/8	48	1 3/4	44	28	794	
1 1/4	2 7/8	73	3 3/4	95	1 7/8	48	1 7/8	48	34	964	
1 1/2	3 5/8	92	4 1/2	114	2 1/4	57	2 1/4	57	54	1531	
2	4	100	5 1/8	130	2 5/8	67	2 1/2	64	84	2381	
2 1/2	6 1/2	165	7 1/2	191	4 1/2	114	3	76	256	7258	
3	6 1/2	165	8	200	4 5/8	117	3 3/8	86	274	7768	



### LF289

SIZE		DIMENSIONS					WEIGHT					
in.	A		B		C	D		lbs.	kg.			
	in.	mm	in.	mm	in.	mm	in.			mm		
3/8	2	50	3 3/4	95	1 3/8	35	2 3/8	60	1 1/2	38	.9	.4
1/2	2	50	3 3/4	95	1 3/8	35	2 3/8	60	1 1/2	38	1	.4
3/4	3 3/4	95	5	127	2 1/2	64	2 1/2	64	2 3/8	60	3	1.4



### LFN388

SIZE		DIMENSIONS				WEIGHT		
in.	A		B		C		lbs.	kg.
	in.	mm	in.	mm	in.	mm		
1/4	1 3/4	44	2 5/16	59	3/4	19	.50	.2
3/8	1 3/4	44	2 3/8	60	7/8	22	.75	.3

### 188A

SIZE		DIMENSIONS				WEIGHT		
in.	A		C		D		lbs.	kgs.
	in.	mm	in.	mm	in.	mm		
3/4	2 1/4	57	1 7/8	48	1 1/2	38	1.13	.51
1	2 7/8	73	2 1/8	54	1 11/16	43	1.75	.79
1 1/4	2 7/8	73	2 1/8	54	1 13/16	46	2.13	.96
1 1/2	3 5/8	92	2 7/16	62	2 3/16	56	3.63	1.64
2	4 1/8	105	2 7/8	73	2 1/2	64	5.25	2.38

