



## Materials

**Body:** Stainless steel

**Internal Components:** Stainless steel

**Seals:** Specially formulated polyurethane seals to withstand high pressure NGV applications



FLB-1000

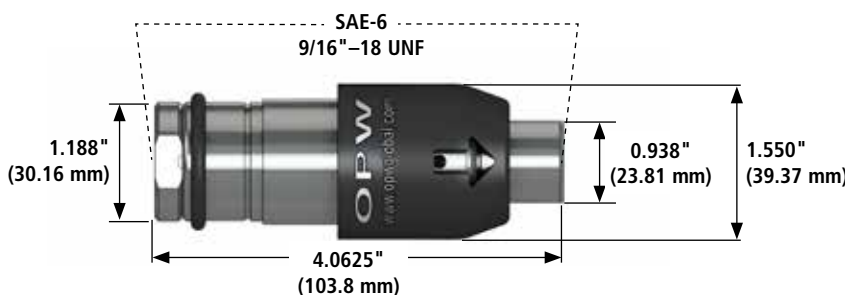
## Features

- ◆ **High-Flow/Fast Fill Capacity** - This NGV1 breakaway will provide quick fueling of large vehicles.
- ◆ **Durable, Corrosion-Resistant Construction** - stainless steel construction provides improved durability and corrosion resistance in harsh environments.
- ◆ **Reconnectable Design** - allows the component to be reused, reducing total cost of ownership
- ◆ **Innovative Valve System** - the sealing system in this breakaway minimizes the amount of vent gas released during a drive-away incident.
- ◆ **Reduced Size and Weight** - to allow for more applications where size may be a concern.
- ◆ **Easy Installation** - the in-line breakaway has SAE-6 O-ring fittings for easy installation in line between the dispenser and nozzle.
- ◆ **Disconnection Force** - 120 lbs. (+/- 30 lbs.) (534 +/- 134 N).
- ◆ **100% Leak and Breakaway Tested, with Traceable Serial Numbers**

## Ordering Specifications

Product #	Inlet Thread Size	Outlet Thread Size	Service Pressure	Weight
FLB-1000	SAE - 6, 9/16" - 18 UNF (female)	SAE - 6, 9/16" - 18 UNF (female)	3,600 psi 250 bar	.091 lb (0.41 kg)
CNGBREAKKIT-1000 (Includes FLB-1000 and NGVLB Breakaway)	FLB-1000 SAE - 6, 9/16" - 18 UNF (female)	FLB-1000 SAE - 6, 9/16" - 18 UNF (female)	3,600 psi 250 bar	1.13 lb (0.51 kg)
	NGVLB SAE - 6, 9/16" - 18 UNF	NGVLB SAE - 6, 9/16" - 18 UNF	3,600 psi 250 bar	

FLB-1000 Dimensions



## Listings and Certifications



# CRN

See page 43 for Canadian Registration Number

# NEW

## Fill-Line Breakaway (FLB-1000) - Standard Duty

OPW has optimized the in-line breakaway for use in automotive NGV refueling applications. This unit will function consistently, independent of the inlet pressure.

## Specifications:

Max Flow Rate: 3,700 SCFM @ 3,600 psid

Temperature Range: -40° F to 185° F  
(-40° C to 85° C)

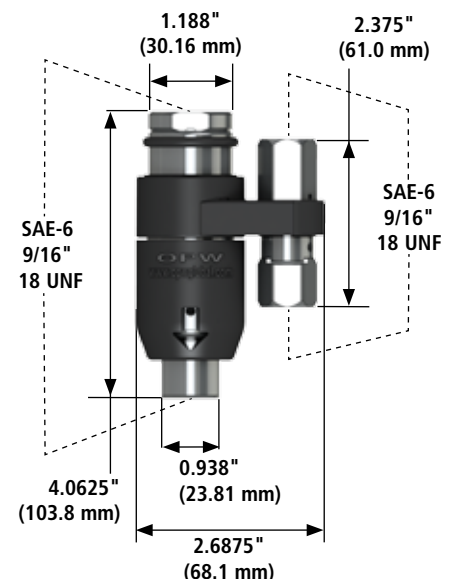
Cv: 1.85

MAWP: 4,532 psi (312.5Bar)



## Fill-Line Breakaway Kit

CNGBREAKKIT-1000  
(Includes NGVLB Breakaway)





# CleanEnergy Nozzle Compatibility Matrix

	CNG Nozzles	CNG Breakaways		NEW CNG Breakaways & CNGBREAKKITS			Standard NGV1 CNG Receptacles NOTE: These use Receptacle Fit Gage RINGO-0001						High Flow CNG Receptacles NOTE: These use Receptacle Fit Gage RINGO-0005						Nozzle Gages			
		ILB-1	ILB-5	FLB 1000 & CNG BREAK KIT-1000	FLB 5000 & CNG BREAK KIT-5000	NGVLB	LB30	LD30	LE30	LB36	LD36	LE36	CL40	CL4078	CL50	CL5000	CL5016	CL5078	JAWGO -1	JAWGO -5		
NGV1	Type 1	CT1000SS (3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
		CT1000P36S (3,600 psi/250 bar)	✓	X	✓	X	✓	X	X	X	✓	✓	✓	X	X	X	X	X	X	X	✓	X
	Type 2 & 3	CC300P30S (3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	✓	X	
		CC300P36S (3,600 psi/250 bar)	✓	X	✓	X	✓	X	X	X	✓	✓	X	X	X	X	X	X	X	✓	X	
		CC600S (3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	✓	X	
		CC600P36S (3,600 psi/250 bar)	✓	X	✓	X	✓	X	X	X	✓	✓	X	X	X	X	X	X	X	✓	X	
		CC600 Series Nozzle including 3-Way Valve (3WV series) (3,600 psi/250 bar & 3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	✓	X	
	Type 3	CC250 (3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	X
		CC270 (3,000 psi/200 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	X
Bus / High Flow	Type 1	CT5000S (3,600 psi/250 bar)	X	✓	X	✓	✓	X	X	X	X	X	X	X	✓	✓	✓	✓	✓	✓	X	✓
	Type 2	CC6000 (3,600 psi/250 bar)	X	✓	X	✓	✓	X	X	X	X	X	X	X	✓	✓	✓	✓	✓	✓	X	✓
CNG Defueling	BDN (3,600 psi/250 bar)	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	✓	X		

# CleanEnergy Hose Kit Compatibility Matrix

Fully Factory Assembled and Tested



			Hose Kit Component	Time Fill			Light Duty (LD)					Heavy Duty (HD)		Extra Heavy Duty (XHD)	Defueling		
				2' Whip Hose / 14' Main Hose	2' Whip Hose / 18' Main Hose	8' Whip Hose / 12' Main Hose	2' Whip Hose / 8.3' Main Hose	2' Whip Hose / 8.3' Main Hose	2' Whip Hose / 10' Main Hose	2' Whip Hose / 13' Main Hose	2' Whip Hose / 13' Main Hose	2' Whip Hose / 13' Main Hose	2' Whip Hose / 8.3' Main Hose	2' Whip Hose / 8.3' Main Hose	2' Whip Hose / 8.3' Main Hose	10' Whip Hose / 2' Main Hose	25' Whip Hose / 25' Main Hose
				TFCNG KIT-14C36	TFCNG KIT-20B36	TFCNG KIT-20D36	LDCNG KIT-11	LDCNG KIT-11 FLB	LDCNG KIT-12	LDCNG KIT-15A	LDCNG KIT-20B36	HDCNG KIT-11	HDCNG KIT-11FLB	XHDCNG KIT-10	LDCN DPK-12	XFLDCNG KIT-50	
Nozzles	NGV1	Type 1	CT1000SS (3,000 psi/ 200 bar)	X	X	X	X	X	X	✓	X	X	X	X	X	X	
			CT1000P36S (3,600 psi/ 250 bar)	X	X	X	✓	✓	✓	X	X	X	X	X	X	✓	
		Type 2 & 3	CC600 Series Nozzle including 3-Way Valve (3WV series) (3,600 psi/ 250 bar & 3,000 psi/ 200 bar)	✓	✓	✓	X	X	X	X	✓	X	X	X	X	X	
	Bus / High Flow	Type 1	CT5000S (3,600 psi/ 250 bar)	X	X	X	X	X	X	X	X	✓	✓	✓	X	X	
		Defueling	BDN (3,600 psi/ 250 bar)	X	X	X	X	X	X	X	X	X	X	X	✓	✓ with 3WV-46D	
Fill Line Break-aways	Standard Duty		ILB-1	X	X	X	✓	X	X	X	X	X	X	X	X	X	
			FLB-1000	X	X	X	X	X	X	X	X	X	X	X	✓	X	
			CNGBREAK KIT-1000	✓	✓	✓	X	✓	✓	✓	✓	X	X	X	X	✓	
Fill Line Break-aways	Bus / High Flow		ILB-5	X	X	X	X	X	X	X	X	✓	X	X	X	X	
			FLB-5000	X	X	X	X	X	X	X	X	X	X	X	X	X	
			CNGBREAK KIT-5000	X	X	X	X	X	X	X	X	X	✓	✓	X	X	
Vent Line Breakaways			NGVLB	✓	✓	X	✓	X	✓	✓	✓	✓	✓	✓	X	X	
Hose Retractor			6102-CNG	X	X	X	✓	✓	✓	✓	✓	X	X	X	X	✓	
			6102-CNG2	X	X	X	X	X	X	X	X	✓	✓	✓	✓	X	

## Installation & Operating Instructions

Installation and operating instructions are included with all new and rebuilt products; however, they may also be ordered separately

Instruction Sheet Item #	Item Description
207943	FLB-1000, FLB-5000 Breakaway Installation & Operating Instructions
207732	NGVLB Breakaway Installation & Operating Instructions
H14914M	ILB-1, ILB-5 Breakaway Installation & Operating Instructions
201494	ILB-1, ILB-5 Breakaway Repair Kit Instructions
H13741M	CT1000, CT5000 Series Nozzle Installation & Operating Instructions
001563	CT1000 and CT5000 Series Nozzle Jaw Replacement Instructions
H13857M	CC200 Series Nozzle Installation & Operating Instructions
H13795M	CC300 Nozzle Installation & Operating Instructions
H13742M	CC600 Series Nozzle Installation & Operating Instructions
001562	CC600 Series Nozzle Jaw Replacement Instructions
H14076M	CC6000 Nozzle Installation & Operating Instructions
H13744M	LB30, LB36, LD, LE, CL40 and CL4078 Receptacles Installation Instructions
H13747M	LB3078, LB3678 & CL5078 Receptacles Installation Instructions
H14441PA	CL50 Series Receptacle Installation Instructions
H13745M	CL5000, CL5016 Receptacle Installation Instructions

## Part Kits and Factory Rebuild Service

OPW is pleased to offer nozzle and breakaway rebuild services. Rebuilds include (where applicable) replacement of all internal seals, O-rings, valves, jaws, handle, protective sleeves, spring supports, guide rings and vent tubes. **In addition, all OPW Factory rebuilt products are 100% full-function tested before being redeployed.**

KIT Item #	Description	
207983	FLB-1000 STANDARD DUTY FILL-LINE BREAKAWAY REPAIR KIT	OPW Factory Parts. Labor by Authorized Field Technician
207739	FLB-5000 HEAVY DUTY FILL-LINE BREAKAWAY REPAIR KIT	
A157	ILB-1 INLINE BREAKAWAY CNG & H2 NGV-1 REPAIR KIT	
A155	ILB-5 INLINE BREAKAWAY HD/TRUCK REPAIR KIT	
A156	CT1000SS JAW REPLACEMENT KIT	
A158	CT1000LS JAW REPLACEMENT KIT	
A159	CT1000P36S JAW REPLACEMENT KIT	
A152	CT5000S JAW REPLACEMENT KIT	
A153	CC600 SS JAW REPLACEMENT KIT	

REPAIR Item #	Description	
FLB-1000 REPAIR	FLB-1000 STANDARD DUTY FILL-LINE BREAKAWAY REBUILD	OPW Factory Parts, Labor & Full-Function Testing by OPW Lab Technician
FLB-5000 REPAIR	FLB-5000 HEAVY DUTY FILL-LINE BREAKAWAY REBUILD	
ILB-1 REPAIR	ILB-1 INLINE BREAKAWAY CNG & H2 NGV-1 REBUILD	
ILB-5 REPAIR	ILB-5 INLINE BREAKAWAY HD/TRUCK REBUILD	
CT1000SS REPAIR	CT1000SS NOZZLE TYPE 1 CLASS A (P30) REBUILD	
CT1000LS REPAIR	CT1000LS NOZZLE TYPE 1 CLASS A (P30) REBUILD	
CT1000P36S REPAIR	CT1000P36S NOZZLE TYPE 1 CLASS A (P36) (SST JAWS) REBUILD	
CT5000S REPAIR	CT5000S TYPE 1 HEAVY DUTY BUS/TRUCK NOZZLE REBUILD	
BDN REPAIR	BDN DEFUELING NOZZLE CNG (P30/P36) REBUILD	
CH1000 REPAIR	CH2000 FUEL NOZZLE TYPE 1, CLASS A (P36) REBUILD	
CH2000 REPAIR	CH2000 FUEL NOZZLE TYPE 1, CLASS A (P36) REBUILD	
CW3600 REPAIR	CW3600 SAE HYDROGEN NOZZLE TYPE 1 CLASS A (P36) REBUILD	
CW5000 REPAIR	CW5000 SAE HYDROGEN NOZZLE TYPE 1 CLASS A (P50) REBUILD	

## Canadian Registration Numbers by Province

Canadian Registration Numbers OPW CleanEnergy Products	British Columbia	Alberta	Ontario	Quebec	Saskatchewan	Manitoba	Nova Scotia	New Brunswick
CT1000 series	0H13989.51	0H13989.52	0H13989.5	0H13989.56	0H13989.56	0H13989.56	pending	pending
CT5000	0H15417.51	0H15417.52	0H15417.5	0H15417.56	0H15417.56	0H15417.54	0H15417.58ADD1	pending
CC600 series	0H13989.51	0H13989.52	0H13989.5	0H13989.56	0H13989.56	0H13989.56	pending	pending
ILB-1	0H13989.51	0H13989.52	0H13989.5	0H13989.56	0H13989.56	0H13989.56	pending	pending
ILB-5	0H15417.51	0H15417.52	0H15417.5	0H15417.56	0H15417.56	0H15417.56	pending	pending
VLB	0H13989.51	0H13989.52	0H13989.5	0H13989.56	0H13989.56	0H13989.56	pending	pending
FLB-1000 (new)	0H17341.51	0H17341.52	0H17341.5	0H17341.56	0H17341.56	0H17341.56	0H17341.5987	0H17341.5987
FLB-5000 (new)	0H17341.51	0H17341.52	0H17341.5	0H17341.56	0H17341.56	0H17341.56	0H17341.5987	0H17341.5987
NGVLB (new)	0H17341.51	0H17341.52	0H17341.5	0H17341.56	0H17341.56	0H17341.56	0H17341.5987	0H17341.5987

### CSA Approved

- ◆ CT1000 series nozzles
- ◆ CC 200 series nozzles
- ◆ CC 300 series nozzles
- ◆ CC 600 series nozzles
- ◆ 3WV series valves
- ◆ Hoses
- ◆ LB, LD, LE series receptacles

### TUV Approved

- ◆ CT1000 series nozzles
- ◆ CT5000 series nozzles
- ◆ CC 200 series nozzles
- ◆ CC 300 series nozzles
- ◆ CC 600 series nozzles
- ◆ CC 6000 series nozzles
- ◆ ILB series breakaways
- ◆ FLB series breakaways
- ◆ NGVLB series breakaways
- ◆ LB, LD, LE series receptacles
- ◆ CL series receptacles