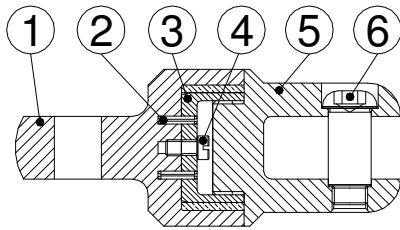


# OPERATING SPECIFICATIONS



## SERIES 00560 BREAKAWAY CONNECTOR

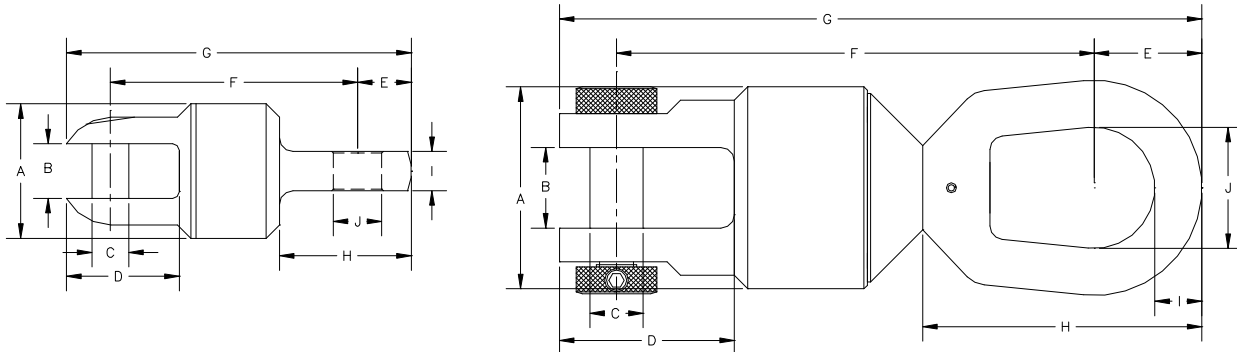
1. The breakaway connector is intended as mechanical overload protection for use when installing cable, ducting or pipe. It is used in conjunction with series 00565 or 00566 breakaway pins.



Series 00560 Breakaway Connectors are designed to prevent excessive loads damaging the cable or ducting during the pullback operation.

1. Body
2. Alignment Pin
3. Pin Chamber
4. Breakaway Pins
5. Clevis End
6. Clevis Pin

The Series 00560 Breakaway Connector is made up of six basic components, as shown on the drawing. The breakaway pins can be assembled in any configuration, provided they are installed in a symmetrical pattern. Separation will occur at the value of the sum of the pin values.



Part Number	A	B	C	D	E	F	G	H	I	J	Net Weight	Replacement Clevis Pin Kit (2 Pins / Kit)
00560-010	2-1/2" 63.5 mm	1" 25.4mm	11/16" 17.4mm	2-3/32" 53.1mm	1" 25.4mm	4-19/32" 116.6mm	6-13/32" 162.7mm	2-7/16" 61.8mm	29/32" 23.0mm	29/32" 23.0mm	4.0 lb 1.81 kg	00035-HEX
00560-020	3-3/4" mm	1-1/2" 38.1mm	1" 25.4mm	3-1/4" 82.5mm	2" 50.8mm	8-7/8" 225.4mm	11-15/16" 303.1mm	5-3/16" 131.7mm	7/8" 22.2mm	2-1/4" 57.15mm	14.7 lb 6.66 kg	00508-010

### 00560-010 BREAKAWAY PINS

PINS WITH POUND BREAK LOADS				
Pin Kit (5 Pins / Kit)	Break Value (+/- 5%)	Color Code	Torque (ft-lbs)	Preload (lbs)
00565-075	750 LB	YELLOW	2	540
00565-100	1,000 LB	ORANGE	3	720
00565-150	1,500 LB	RED	4	980
00565-200	2,000 LB	BLUE	6	1360
00565-250	2,500 LB	GREEN	7	1700

PINS WITH KILOGRAM BREAK LOADS				
Pin Kit (5 Pins / Kit)	Break Value (+/- 5%)	Color Code	Torque (ft-lbs)	Preload (lbs)
00566-030	300 KG	WHITE	2	440
00566-040	400 KG	BEIGE	3	600
00566-050	500 KG	TURQUOISE	3	740
00566-100	1,000 KG	PURPLE	6	1400
00566-120	1,200 KG	BLACK	7	1640

### 00560-020 BREAKAWAY PINS

PINS WITH POUND BREAK LOADS				
Pin Kit (5 Pins / Kit)	Break Value (+/- 5%)	Color Code	Torque (ft-lbs)	Preload (lbs)
00565-300	3,000 LB	YELLOW	12	1853
00565-600	6,000 LB	ORANGE	23	3680
00565-700	7,000 LB	RED	26	4160
00565-800	8,000 LB	BLUE	30	4800
00565-900	9,000 LB	GREEN	33	5280

PINS WITH KILOGRAM BREAK LOADS				
Pin Kit (5 Pins / Kit)	Break Value (+/- 5%)	Color Code	Torque (ft-lbs)	Preload (lbs)
00566-200	2,000 KG	WHITE	18	2880
00566-250	2,500 KG	BEIGE	23	3680
00566-300	3,000 KG	TURQUOISE	26	4160
00566-350	3,500 KG	PURPLE	28	4480
00566-400	4,000 KG	BLACK	31	4960

Dimensions and weights subject to change without notice.

# OPERATING INSTRUCTIONS



**Design &  
Manufacturing Ltd.**

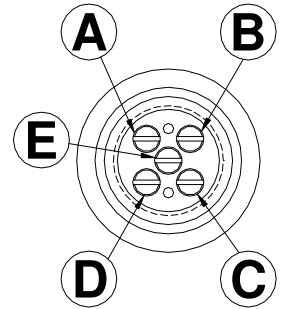
## SERIES 00560 BREAKAWAY SWIVEL



READ AND UNDERSTAND  
THESE INSTRUCTIONS  
BEFORE USING  
THESE PRODUCTS

## INSTALLATION

1. To install the pins in the unit, first select the break value required, then by referring to the load distribution tables on the following pages, select the proper pin combination.
2. Ensure all parts are clean; insert the pin chamber into the body locating the alignment pin into the small drilled hole.
3. Screw the required Breakaway Pins in the proper locations. For longer term installations subject to cyclic loading, torque the pins to the recommended torque value per the tables above. This will prevent fatigue on the pin from all loads below the preload value listed. The final breakload of the pin will remain unchanged.



**WARNING:** Do not over tighten the pins beyond the recommended torque and ensure they are assembled in a symmetrical manner. Failure to do this may result in distorted values.

**PIN LOCATION  
REFERENCE**

4. To remove broken pins, use a Phillips screwdriver pressed firmly into the hole of each pin, unscrew broken end out of hole.

## OPERATION



1. This product **must not** be used if the pulling mechanism functions in a **counter clockwise rotation**. This will cause the Breakaway Connector to loosen its assembled condition.
2. A swivel must **always** be used between the Breakaway Connector and the pulling mechanism to avoid severe damage to the Connector as well as extreme likelihood of personal injury.

## SAFETY



1. An overload condition **will** cause the Breakaway Connector to separate and release the stored energy of the duct, rope, chain or cable. Make sure that all components of the pulling system are able to withstand the maximum pulling loads. Components not rated for the pull force may break and release the stored energy of the pull. Never use a worn, defective or incomplete component.
2. **Use Breakaway pins once only.** Elongation or stretching of the pins may occur during the first use and we will not guarantee predictable results on subsequent usage.
3. Be prepared for the unexpected. Always use recognized safety practices and wear recognized safety equipment.

## SERVICE



1. To maintain this product in the best possible condition, it must be thoroughly cleaned out after each use and a light smear of grease should be applied to the surfaces of the bronze bushing and the Pin Chamber after each use.

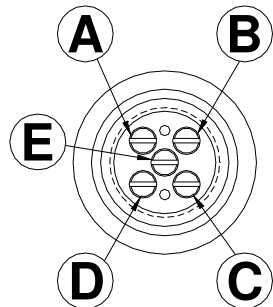
## 00560-010 BREAKAWAY PIN LOAD DISTRIBUTION TABLE

In the following table are suggested ways of arriving at required load values. There are usually several options other than those shown below. The five pin locations are designated as A, B, C, D & E. All numbers below are expressed in lb or kg.

Pin Location (See Pin Location Reference Diagram)					Break Value
A	B	C	D	E	lb
				750	750
				1,000	1,000
				1,500	1,500
1,000		750			1,750*
				2,000	2,000
750		750		750	2,250
750		750		1,000	2,500
1,000		1,000		750	2,750
750	750	750	750		3,000
750	750	750	1,000		3,250
750	1,000	750	1,000		3,500
1,500		1,500		750	3,750
1,000	1,000	1,000	1,000		4,000
1,000	750	1,000	750	750	4,250
1,500		1,500		1,500	4,500
2,000		2,000		750	4,750
	2,500		2,500		5,000
1,500	750	1,500	750	750	5,250
2,000		2,000		1,500	5,500
1,000	1,500	1,000	1,500	750	5,750
1,500	1,500	1,500	1,500		6,000
2,000	750	2,000	750	750	6,250
1,500	750	1,500	750	2,000	6,500
1,500	1,500	1,500	1,500	750	6,750
1,500	2,000	1,500	2,000		7,000
2,000	1,000	2,000	1,500	750	7,250*
	2,500		2,500	2,500	7,500
2,000	1,500	2,000	1,500	750	7,750
2,000	2,000	2,000	2,000		8,000
2,000	1,500	2,000	1,500	1,500	8,500
1,500	2,000	1,500	2,000	2,000	9,000
2,000	2,000	2,000	2,000	1,500	9,500
2,500	2,500	2,500	2,500		10,000
2,500	2,000	2,500	2,000	1,500	10,500
2,500	2,500	2,500	2,500	1,000	11,000
2,500	2,500	2,500	2,500	1,500	11,500
2,500	2,500	2,500	2,500	2,000	12,000
2,500	2,500	2,500	2,500	2,500	12,500

Pin Location (See Pin Location Reference Diagram)					Break Value
A	B	C	D	E	kg
				300	300
				400	400
				500	500
300		300			600
300		400			700*
400		400			800
400		500			900*
				1,000	1,000
400		400		300	1,100
400		400		400	1,200
400		400		500	1,300
500		500		400	1,400
500		500		500	1,500
300		300		1,000	1,600
500	400	500	300		1,700*
400		400		1,000	1,800
500	500	500	400		1,900*
1000		1,000			2,000
500	400	500	400	300	2,100
500	400	500	400	400	2,200
500	400	500	400	500	2,300
1,200		1,200			2,400
500	500	500	500	500	2,500
1,000	300	1,000	300		2,600
1,200		1,200		300	2,700
1,200		1,200		400	2,800
1,200		1,200		500	2,900
1,000		1,000		1,000	3,000
1,000	400	1,000	400	300	3,100
1,000	400	1,000	400	400	3,200
1,000	400	1,000	400	500	3,300
1,200		1,200		1000	3,400
1,200	400	1,200	400	300	3,500
1,200		1,200		1200	3,600
1,200	400	1,200	400	500	3,700
1,000	400	1,000	400	1,000	3,800
1,200	500	1,200	500	500	3,900
1,000	1,000	1,000	1,000		4,000
1,000	400	1,000	500	1,200	4,100*
1,200	400	1,200	400	1,000	4,200
1,000	1,000	1,000	1,000	300	4,300
1,000	1,000	1,000	1,000	400	4,400
1,000	1,000	1,000	1,000	500	4,500
1,200	500	1,200	500	1,200	4,600
1,000	1,200	1,000	1,200	300	4,700
1,200	1,200	1,200	1,200		4,800
1,000	1,200	1,000	1,200	500	4,900
1,000	1,000	1,000	1,000	1,000	5,000
1,200	1,200	1,200	1,200	300	5,100
1,200	1,200	1,200	1,200	400	5,200
1,200	1,200	1,200	1,200	500	5,300
1,200	1,000	1,200	1,000	1,000	5,400
1,200	1,000	1,200	1,000	1,200	5,600
1,200	1,200	1,200	1,200	1,000	5,800
1,200	1,200	1,200	1,200	1,200	6,000

\*Note! Uneven pin distribution may result in up to 10% higher breaking point.



**PIN LOCATION REFERENCE**

Patent # 5,599,129

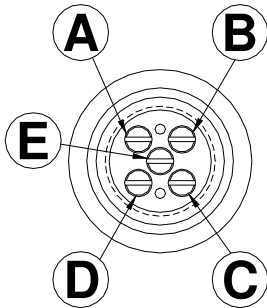
## 00560-020 BREAKAWAY PIN LOAD DISTRIBUTION TABLE

In the following table are suggested ways of arriving at required load values. There are usually several options other than those shown below. The five pin locations are designated as A, B, C, D & E. All numbers below are expressed in lb or kg.

Pin Location (See Pin Location Reference Diagram)					Break Value
A	B	C	D	E	lb
				3,000	3,000
6,000		6,000			12,000
3,000		3,000		7,000	13,000
7,000		7,000			14,000
3,000		3,000		9,000	15,000
8,000		8,000			16,000
7,000		7,000		3,000	17,000
9,000		9,000			18,000
8,000		8,000		3,000	19,000
7,000		7,000		6,000	20,000
7,000		7,000		7,000	21,000
7,000		7,000		8,000	22,000
7,000		7,000		9,000	23,000
8,000		8,000		8,000	24,000
8,000		8,000		9,000	25,000
9,000		9,000		8,000	26,000
9,000		9,000		9,000	27,000
7,000	7,000	7,000	7,000		28,000
3,000	7,000	3,000	7,000	9,000	29,000
6,000	6,000	6,000	6,000	6,000	30,000
6,000	6,000	6,000	6,000	7,000	31,000
6,000	6,000	6,000	6,000	8,000	32,000
6,000	6,000	6,000	6,000	9,000	33,000
7,000	7,000	7,000	7,000	6,000	34,000
7,000	7,000	7,000	7,000	7,000	35,000
7,000	7,000	7,000	7,000	8,000	36,000
7,000	7,000	7,000	7,000	9,000	37,000
8,000	7,000	8,000	7,000	8,000	38,000
8,000	7,000	8,000	7,000	9,000	39,000
8,000	8,000	8,000	8,000	8,000	40,000
8,000	8,000	8,000	8,000	9,000	41,000
9,000	9,000	9,000	9,000	6,000	42,000
9,000	9,000	9,000	9,000	7,000	43,000
9,000	9,000	9,000	9,000	8,000	44,000
9,000	9,000	9,000	9,000	9,000	45,000

Pin Location (See Pin Location Reference Diagram)					Break Value
A	B	C	D	E	kg
				3,000	3,000
3,000		3,000			6,000
2,000		2,000		2,500	6,500
2,000		2,000		3,000	7,000
2,000		2,000		3,500	7,500
4,000		4,000			8,000
3,000		3,000		2,500	8,500
3,000		3,000		3,000	9,000
3,000		3,000		3,500	9,500
3,000		3,000		4,000	10,000
4,000		4,000		2,500	10,500
4,000		4,000		3,000	11,000
4,000		4,000		3,500	11,500
4,000		4,000		4,000	12,000
2,500	2,500	2,500	2,500	2,500	12,500
2,500	2,500	2,500	2,500	3,000	13,000
2,500	2,500	2,500	2,500	3,500	13,500
2,500	2,500	2,500	2,500	4,000	14,000
3,000	3,000	3,000	3,000	2,500	14,500
3,000	3,000	3,000	3,000	3,000	15,000
3,000	3,000	3,000	3,000	3,500	15,500
3,000	3,000	3,000	3,000	4,000	16,000
3,000	3,500	3,000	3,500	3,500	16,500
3,500	3,500	3,500	3,500	3,000	17,000
3,500	3,500	3,500	3,500	3,500	17,500
3,500	3,500	3,500	3,500	4,000	18,000
4,000	3,500	4,000	3,500	3,500	18,500
4,000	3,500	4,000	3,500	4,000	19,000
4,000	4,000	4,000	4,000	3,500	19,500
4,000	4,000	4,000	4,000	4,000	20,000

\*Note! Uneven pin distribution may result in up to 10% higher breaking point.



**PIN LOCATION REFERENCE**

Patent # 5,599,129