

# Revolutionary Pivoting signpost anchor

## SmartFlex

- Savings
- Safety
- Modern urban look

Replace old bent sign post tubes with SmartFlex flexible base multi attachment system.

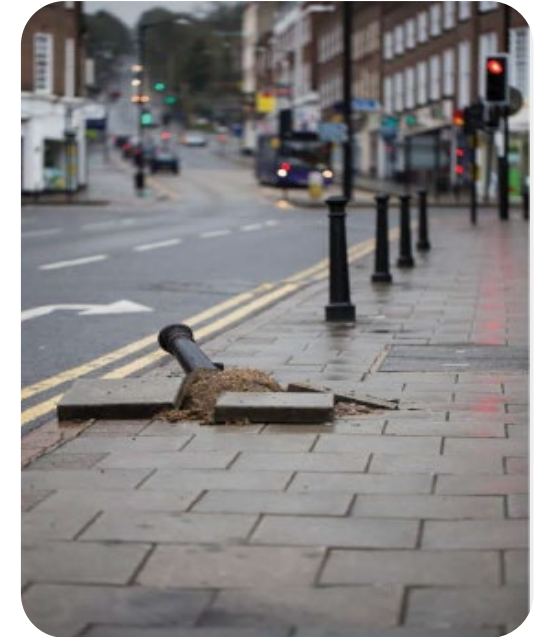




## PROBLEM

Every day, traffic bollards and road signs are subjected to frequent damage by involuntary accidents or incorrect and clumsy parking maneuvers. This creates damage to cars, as well as reflecting a negative perception of urban décor, and or the city's lack of safety maintenance.

It is always unpleasant to notice damaged bollards or bent signs on roads. The visual condition of road signs and street furniture always creates a certain first impression of a city for its inhabitants and for the first-time visitors.



## Negative effects

The repair of a bollard or a road sign entails a notable increase in spending as well as the cost of the new element, labor and installation costs that must be taken into consideration. Total replacement costs are doubled compared to the price of a single pole or bollard with SmartFlex.



## Statistical data

- On average every year 500-800 traffic bollards are replaced in cities based on a population of 2 million inhabitants\*
- Every year 6% of poles for road signs in critical places must be replaced due to damage\*\*
- Long term, the total expense associated with a bollard or road sign can amount to 40 times more compared to the initial investment following frequent repairs or replacements



## Negative effects

- Unpleasant image of a city
- Waste of budget for replacement
- Hazard

# SmartFlex

## SmartFlex 40° & 90°

FLEXIBLE UPRIGHT FOR SIGN BASES





The SF-A76-40 & 90 upright was developed to avoid damage to road signs and to cut maintenance costs.

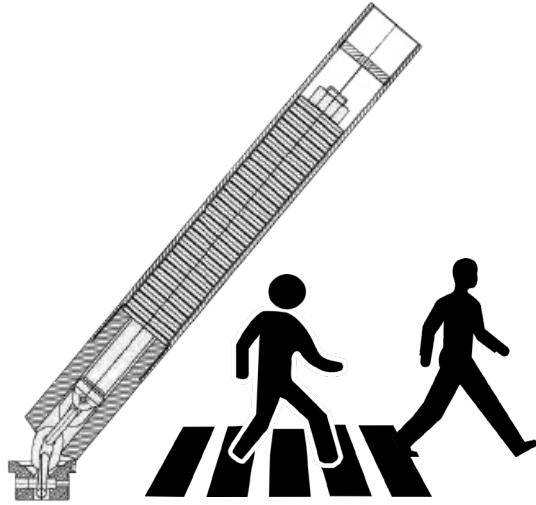
SmartFlex unique rebound technology with disk spring ensures not only flexibility on impact of signposts & bollards, but also their resistance.

Poles & bollards bend only on sufficiently strong vehicle impacts but stay vertical in cases of human interactions. Scientifically calibrated resistance levels guarantee optimal performance of the system from vandalism and high wind gusts.



### ADVANTAGES

- SmartFlex post base bends up to 90° in any direction in the event of a collision, and returns automatically to the initial vertical position
- Replaces breakaway sign attachment systems
- Negligible costs for maintenance during the whole period of operation
- Clean modern look
- Signs are always clearly visible and correctly positioned
- Road signs are easily removed if necessary (events, manifestations, exceptional transports, etc.)
- Easily integrated into the existing or damaged post bases (30 minutes)

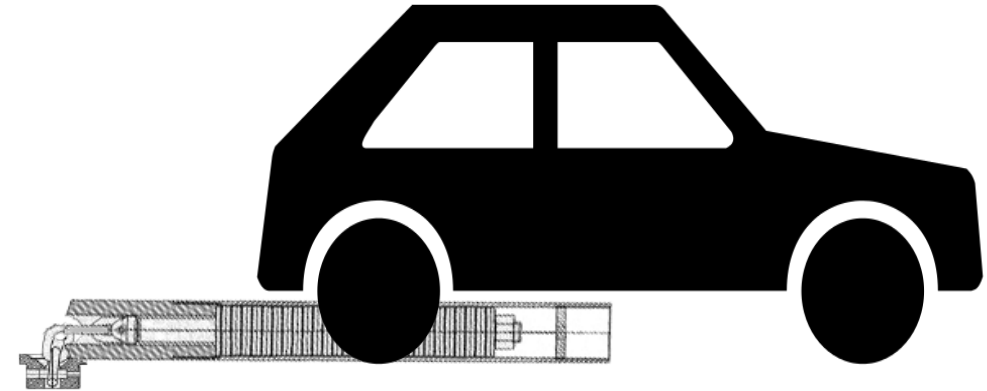


**40 Degree tilt**

**SF-A60-40 Flexible Base Max sign height 6.25 Ft**

**SF-A76-40 Flexible Base Max sign height 10 Ft**

SmartFlex 40° maximum tilt is designed for parking areas where there is slow moving traffic. Restricting the tilt helps protect pedestrians from being hit by a falling traffic sign. The strength and resistance of the SmartFlex softens the impact for the motorist, creating less damage to the vehicle, and allows the sign to return to its upright position.



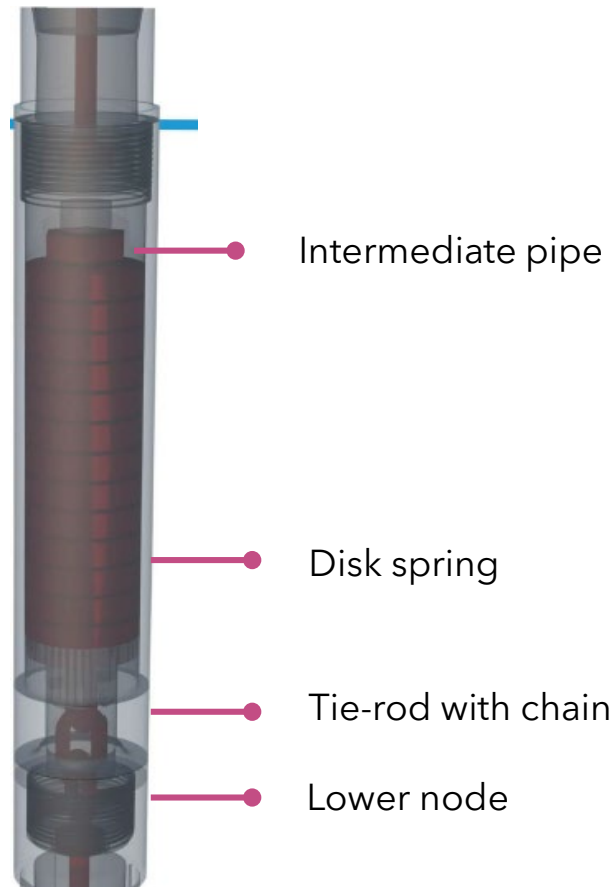
**90 Degree tilt**

**SF-R60-40 Flexible Base Max sign height 6.25 Ft**

**SF-R76-40 Flexible Base Max sign height 10 Ft**

SmartFlex 90° tilt is designed for high speed impacts where the motorist loses control and drives over the sign allowing the vehicle to pass over the traffic post. The strength and resistance of the SmartFlex softens the impact for the motorist, creating less damage to the vehicle, and allows the sign to return to its upright position.

### Components



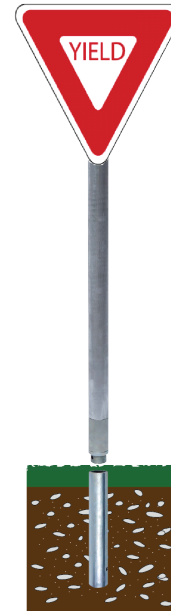
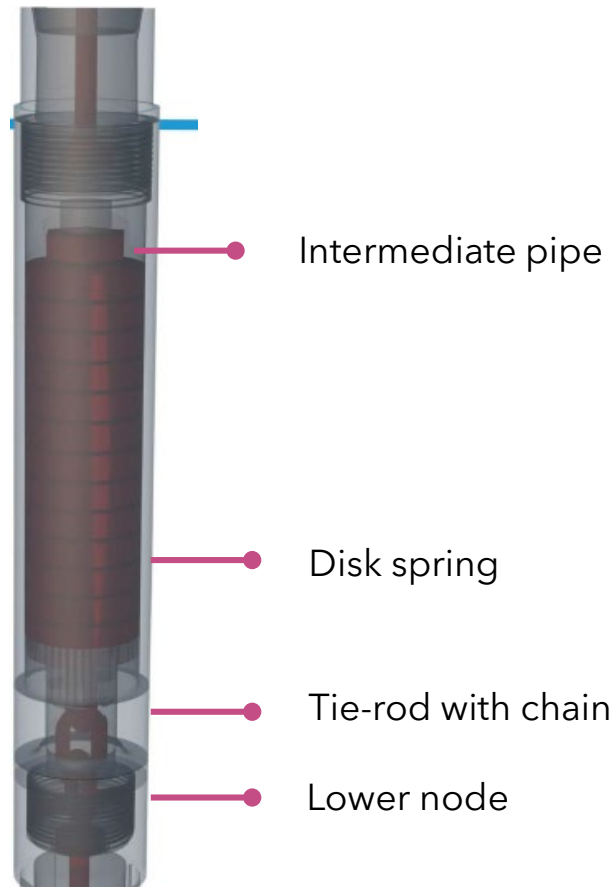
**Standard SignPost**



**SmartFlex 90°**

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- The extraordinary performance of the system is achieved using disk springs
  - Disk springs ensure flexibility and controlled force resistance, providing exceptional sturdiness to the systems rebound capabilities for vandalism and wind gusts
- SmartFlex 90° bends in any direction in the event of a collision
  - Springs back automatically to the initial vertical position
  - Bends only with a strong force caused by a car in the event of a collision

### Components



**Ground Sleeve**  
Earth or  
Concrete foundation



**Traffic Island Plate**  
Rubber & composite  
raised traffic islands



**Surface Plate**  
Concrete surfaces



**Quick Release Anchor**  
Concrete foundation

**SmartFlex has several  
attachment adapters allowing  
installation on any surface**



## FLEXIBLE UPRIGHT FOR DAMAGED SIGNS

The SmartFlex 40° & 90° signpost adapter has been designed with an upper and lower expander to allow rigid damaged signposts to be fitted with a SmartFlex expander adapter. This turns a rigid damaged post into a flexible reboundable traffic post, without having to replace the existing ground anchor sleeve in 4 easy steps.



1. Cut damaged post



2. Insert expander into ground sleeve



Pipe expander



3. Insert expander into upper pole



4. Spin SmartFlex into ground sleeve & upper pole



5. Open to traffic



A deformed road sign on a traffic island is dangerous for all road traffic components. While designing the SF-R60-90° and SF-R76-90° models special attention was given to produce a prototype; making them robust enough to resist the most common damages, frequently seen on traffic islands or to poles that protect pedestrian crossings and roundabouts.

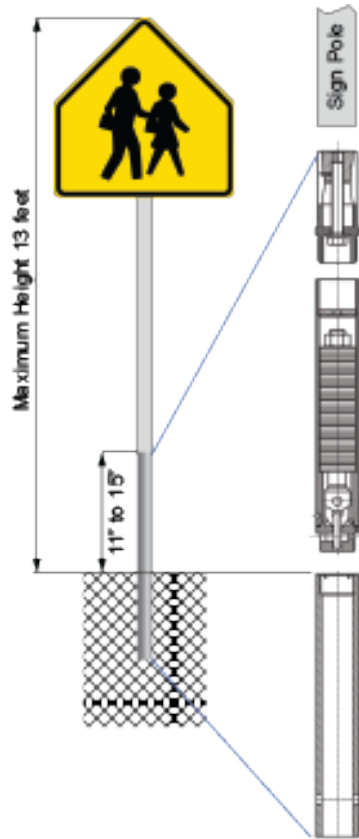
### ADVANTAGES

- SF-R60-90 post base bends up to 90° in any direction, in the event of a collision, and returns automatically to the initial vertical position
- Zero maintenance costs, including monitoring or any replacement of the pole or base during the whole period of operation. The cost is already amortized after the first collision
- Resistant to high-speed collision
- Signs are always clearly visible and correctly positioned
- The road sign is always clearly visible and is in the upright and correct position

### SOLUTIONS FOR

- Traffic islands
- Islands protecting pedestrian crossings
- Roundabouts
- Sensitive areas pronged to frequent vehicle impacts





### ASSEMBLY

SmartFlex SF-R1-90 and SF-R1-40 upright includes:

1. Base connector part of choice
2. SmartFlex Disk Spring
3. Upper expander for joined pole with wall thickness of 0.114".

### APPLICATIONS

- Traffic islands
- Roundabouts
- Inconvenient areas for maneuvers
- Freight terminals, warehouses
- Impact zones, critical places with high frequency of damage

### CHARACTERISTICS

- Optimal strength level against vandalism & wind gusts.
- Signpost only bends on strong impact (from 7.99kNm)
- Bending angle 90° in any direction.
- Immediately return to upright position after car impact
- Resistant to medium speed collisions
- Pole base diameter 2.37" (Ø60,3mm) for sign heights less then 5.5 ft
- Pole base diameter 3" (Ø76mm) for sign heights up to 10 ft
- 4 attachment options, ground sleeve, ground plate, traffic island plate, quick release anchor base

### BENEFITS

- Avoid maintenance and replacement costs
- Eliminate the need for breakaway devices
- Protect urban and maintain road safety aesthetics
- Signpost is always in the correct vertical position

**SmartFlex 4 mounting options facilitates installation based on application type.**

## ASSEMBLY

- SmartFlex SF-R1-90 and SF-R1-40 upright includes:
  1. Base connector **part of choice**
  2. SmartFlex Disk Spring
  3. Upper expander for joined pole with wall thickness of 0.114".



**Ground Sleeve**

### Installation

Concrete foundation  
2.37" 15" x 15" x 15"  
3" 20" x 20" x 20"



**Ground Plate**

### Installation

Concrete anchors



**Traffic Island Plate**

### Installation

Rubber and composite  
traffic islands



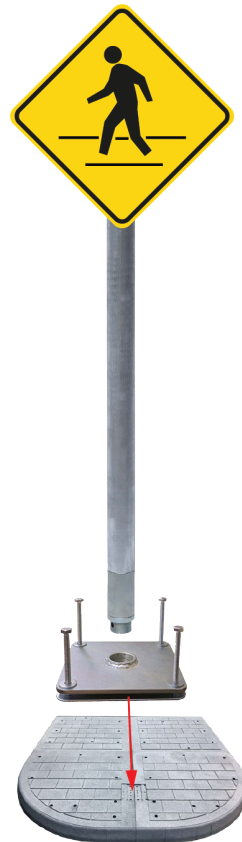
**Quick Release Anchor**

### Installation

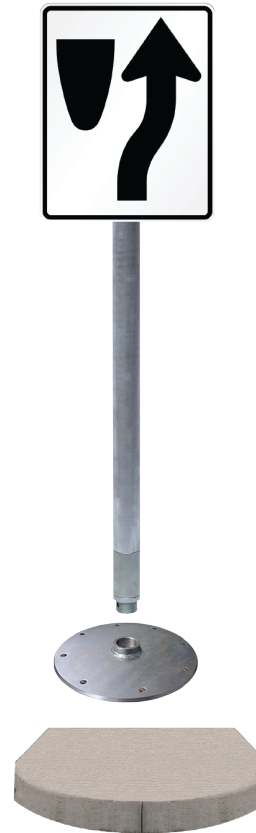
Concrete foundation  
2.37" 15" x 15" x 15"  
3" 20" x 20" x 20"



**Ground Sleeve**  
Earth or  
Concrete foundation



**Traffic Island Plate**  
Rubber & composite  
raised traffic islands



**Surface Plate**  
Concrete surfaces



**Quick Release Anchor**  
Concrete foundation

SmartFlex Mounting Height

**Part # 7A-SF-R60-90**  
2.3" Diameter flexible Signpost  
Recommended maximum post height 5.25FT

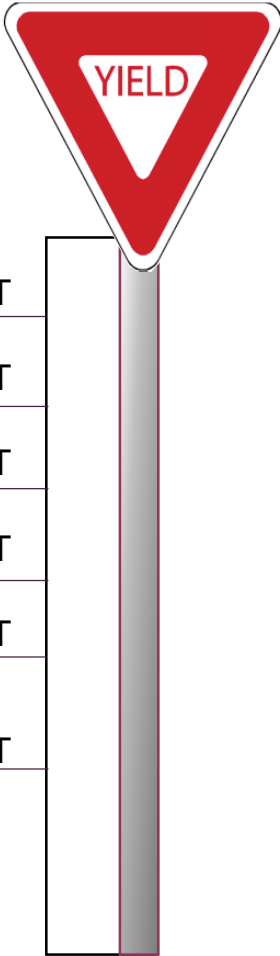
**Part # \*7A-SF-R76-90**  
3" Diameter flexible Signpost  
Recommended maximum post height 10 FT

Larger diameter spring base provides increased bending strength for sign posts up to 10 ft enhancing resistance to vandalism and high wind gusts.

Maximum Sign Height

Pole Height

2.3"	3"	
✗	✓	10 FT
✗	✓	9 FT
✗	✓	7.5 FT
✓	✓	6.25 FT
✓	✓	5.25 FT
✓	✓	4 FT





# Self Rebounable Sign Post Systems

## CONTACT

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