Easyflex™ U-Connector Flanged End

Material of Construction

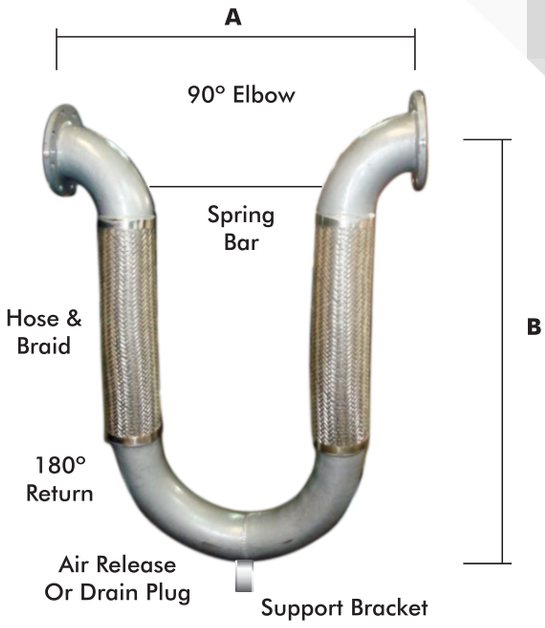
End Fitting : Carbon Steel Stainless Steel

Hose & Braid : Stainless Steel

90° Elbow CS as per schedule 40

180° Return CS as per schedule 40

Note : U Connectors 2" and larger installed in any orientation other than hanging down must have the 180° return supported (See installation instructions)



Model No.	Size Inch (mm)	Movement (In)	A End to End	B Length	PSI Single Braid	PSI Double Braid	Max Steam Press
EFUC020	3/4" (20)	± 1.5"	9"	14"	500	750	300
EFUC025	1" (25)	± 1.5"	9-1/2"	15"	500	750	300
EFUC032	1-1/4" (32)	± 1.5"	10"	16"	500	750	300
EFUC040	1-1/2" (40)	± 1.5"	10-1/2"	17"	500	750	300
EFUC050	2" (50)	± 1.5"	12" - 1/2"	19"	500	750	300
EFUC050A		± 4"	14" - 1/2"	25"			
EFUC065	2-1/2" (65)	± 1.5"	15" - 1/2"	21"	387	619	300
EFUC065A		± 4"	16"	28"			
EFUC080	3" (80)	± 1.5"	18" - 1/2"	23"	288	431	216
EFUC080A		± 4"	18" - 1/2"	30"			
EFUC100	4" (100)	± 1.5"	24" - 1/2"	28"	232	371	186
EFUC100A		± 4"	24" - 1/2"	35"			
EFUC125	5" (125)	± 1.5"	30" - 1/2"	32"	191	306	153
EFUC125A		± 4"	30" - 1/2"	40"			
EFUC150	6" (150)	± 1.5"	36" - 1/2"	37"	165	264	132
EFUC150A		± 4"	36" - 1/2"	46"			
EFUC200	8" (200)	± 1.5"	48" - 1/2"	48"	215	275	115
EFUC200A		± 4"	18" - 1/2"	58"			
EFUC250	10" (250)	± 1.5"	60" - 1/2"	55"	200	270	100
EFUC250A		± 4"	60" - 1/2"	67"			
EFUC300	12" (300)	± 1.5"	72" - 1/2"	63"	160	220	94
EFUC300A		± 4"	72" - 1/2"	74"			
EFUC355	14" (355)	± 1.5"	84" - 1/2"	71"	110	125	63
EFUC355A		± 4"	84" - 1/2"	80.5"			
EFUC400	16" (400)	± 1.5"	96" - 1/2"	78.5"	110	170	85
EFUC400A		± 4"	96" - 1/2"	91.5"			
EFUC455	18" (455)	± 1.5"	108" - 1/2"	86.5"	85	150	75
EFUC455A		± 4"	108" - 1/2"	100"			

When ordering a U-Connector with double-braid, please include the letter "D" at the end of the model #. Example: EFUC200A/D
* Spring Force: These values reflect the total force required to move the U-Connector its full rated movement for 150 P.S.I. at 70° F.
For higher pressures please contact our sales department. Size 12" NB and above are custom made on order and require extended delivery.

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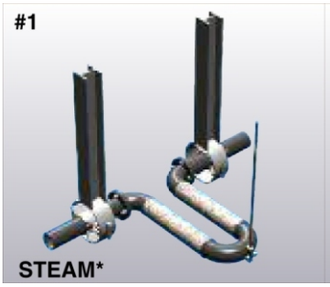
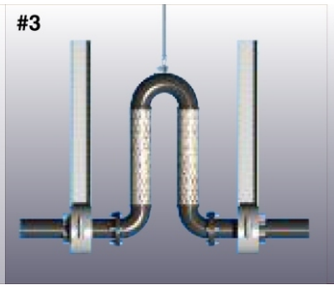
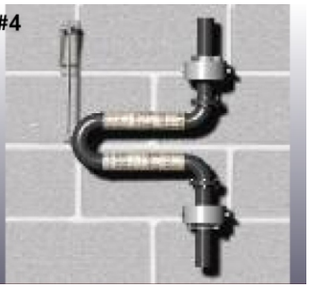
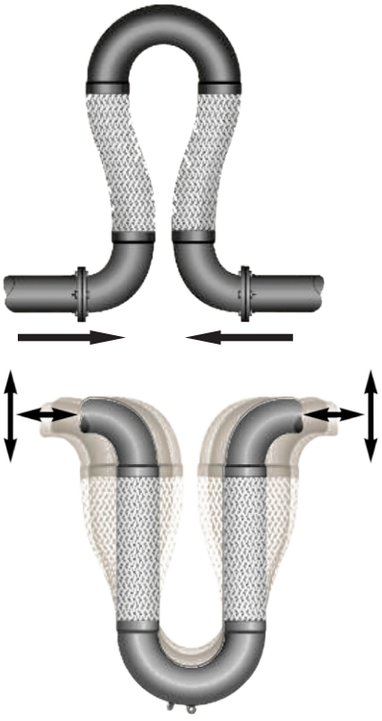
U-Connector Installation Instruction

Illustrated below are the typical orientation for the U-Connector. No support is required for the 180° return bend for standard loops 2-1/2" diameter and smaller. However due to the weight of the return bend and the extreme flexibility fo the loop, larger sizes require support to prevent the 180 from sagging in all orientation except when installed hanging down as shown in illustration #2. Guides are recommended but not always required. Special Note - For steam service minimize the entrapment of condensate is crucial and loops should be installed as shown in illustration #1.

HORIZONTAL	HANGING DOWN	STRAIGHT UP	VERTICAL
			
Support must be provided to the loop from drooping torquing pipe. Support must allow the 180° return, to move horizontally back and forth 1/4", as the loop flexes. *Recommended Installation for steam. Any other orientation may cause condensate to collect.	Loop should hang straight down and be free to flex.	Support must be provided to prevent the loop from leaning. Pipe hanger rod should be loose enough to allow the 180° return to move up or down, or back and froth, as the loop flexes.	Loop must be supported to allow the 180° return to move horizontally back and forth, and up or down, as the loop flexes.



THERMAL EXPANSION : AXIAL MOVEMENT

The U-Connector is simply a flexible variation of the tradition hard pipe loop. For any given length of pipe and given temperature change, the amount of movement can be calculated and the appropriate U-Connector can be designed. When installed in a pipe run the U-Connector's legs simply bend laterally to compensate for pipe's expansion or contraction. Unique to the loop is the incredibly low amount of force required to bend its legs, minimizing anchor loads, guiding and installation costs.

SEISMIC MOVEMENT : ALL DIRECTION

The two flexible legs connected by an unrestrained return bend, will allow a predetermined amount of pipe movement in any direction. (Typical design movement is ±4 inches in any direction, however movement of several feet in any direction is possible). With the loops extreme flexibility and low force to move, the loop absorbs the seismic energy and imposes minimal loads on the adjacent pipe hangers, supports or nozzle loads on major equipment. See page 11 for more details.

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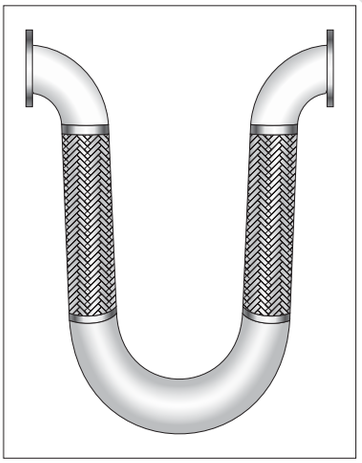
U-Connector Installation Instruction



- U-Connector can be connected to adjacent piping with rigid or flexible type couplings.
- U-Connector may be installed in any orientation / position.*
- U-Connector support:
  - a) No support is required for the (180°) return bend for U-Connectors 2 inch or smaller.
  - b) Support for the (180°) return bend for U-Connectors 2″ and larger. Hanging down require no support. Support for other orientations can be provided in two ways;
    - i. A hanger rod at the 180° that is 12″ long or greater, for the +/- 4″ of movement U-Connecotrs will allow the loop to swing and no additional steps are necessary. For +/- 8″ of movement U-Connectors the hanger rod should be 16″ long or greater.
    - ii. If the U-Connector is installed with hanger rods less than distances recommended above, a spring hanger assembly is recommended, to allow the U-Connector to flex during seismic event.
- U-Connectors are shipped with the shipping bar to insure a neutral face to face during installation. This shipping bar must remain in place during installation, but then must be removed prior to testing.
- Clearance; U-Connectors designed for;
  - a) +/- 4″ of movement, must have 4″ of clearance all around the U-Connector
  - b) +/- 8″ of movement, must have 8″ of clearance all around the U-Connector
- If the U-Connector cannot span the building's seismic separation, it may be installed with the closest elbow not more than 24 inches from the seismic separation.

* When U-Connector is installed in the up (180° bend above pipe run) position consideration should be given to the removal of entrapped air.

Model No.	Size Inch (mm)	Movement (In)	A End to End	B Length	PSI	Spring Force LBS.*	Weight LBS.
EFUC050	2" (50)	+/-8	23"	30"	300	78	19
EFUC065	2-1/2" (65)	+/-8	25"	34"	300	83	31
EFUC080	3" (80)	+/-8	27"	37"	300	90	45
EFUC100	4" (100)	+/-8	31.5"	43"	175	120	64
EFUC125	5" (125)	+/-8	36"	48"	175	186	105
EFUC150	6" (150)	+/-8	42"	55"	175	202	160
EFUC200	8" (200)	+/-8	56"	70"	175	260	297

*Spring force: These values reflect the total force required to move the U Connector to it's full rated movement for 150 p.s.i. @ 70° F.
All Dimension in inches