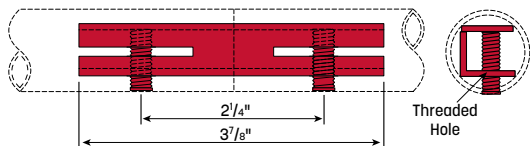


Miscellaneous Couplings and Connectors

These **Fittings** are used to connect **Pipe** or **Tube** end-to-end mechanically or with **Adhesive**. If used as an expansion joint, connect one end and leave the other unattached.



Expansion Connector

For small diameter **Pipe** and **Tube**:

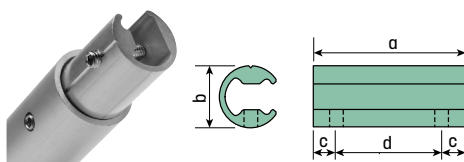
- 3/4" Nominal **Pipe**
- 1" Nominal **Extra Heavy Pipe**
- 1" 16 Ga. OD **Tubing**
- 1" **Square Tubing** 1/8" Wall



3393
Drill Holes as Shown for 1/4" **Set Screw**.

STEEL
3393

Internal Splice



Pipe Size	a	b	c	d	ALLOY 535 ALUMINUM
1 1/2"	4"	1 9/16"	5/8"	2 3/4"	SR70ES-8
2"	4"	2"	5/8"	2 3/4"	SR70ES-9

Straight Coupling



Galvanized Malleable Iron.

For Aluminum **Couplings**, go to pages 82 and 88.

Pipe Size	Tube OD	d	MALLEABLE IRON
3/4"	1.050"	3"	KK14-5
1"	1.315"	3 1/2"	KK14-6
1 1/4"	1.600"	4"	KK14-7
1 1/2"	1.900"	4"	KK14-8
2"	2.375"	4 7/8"	KK14-9

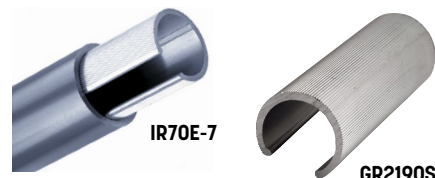
Transition Sleeve

Aluminum for use with either Aluminum or Stainless Steel **Top Rails**.

- This step-down **Sleeve** is used to transition between thinner walled **Slotted Top Rail** and matching **Wall Returns, Rail Ends and Posts**.
- Use **Epoxy** for attachment - page 29.



HANDRAIL	Join to	ALUMINUM
GR2168	to 1 1/4" Sch. 40 Pipe	LU404
GR2190	to 1 1/2" Sch. 40 Pipe	LU403
GR3166 GR3168	to 1 1/4" Sch. 10 Pipe	LU408
GR3166 GR3168	to 1 1/4" Sch. 40 Pipe	LU402
GR3190 GR3192	to 1 1/2" Sch. 40 Pipe	LU401
GR3200	to 2" OD Tube w/.188" Wall	LU400



Internal Sleeve

May be used with Aluminum or Stainless Steel.

Ribbed outer surface. Attach using Epoxy - page 29.

Pipe Size	Schedule	Tube OD	Tube ID	Length	EXTRUDED ALUMINUM
1 1/4"	40	1.66"	1.38"	4"	IR70E-7
1 1/4"	5	1.66"	1.54"	5"	GR3166S
1 1/2"	40	1.90"	1.62"	5"	SA517
1 1/2"	10	1.90"	1.68"	5"	GR2190S
1 1/2"	5	1.90"	1.78"	4"	GR3190S
		2.00"	1.75"	5"	GR2200S
		2.50"	2.25"	5"	GR2250S
		2.50"	2.38"	5"	GR325CS
1 1/4"	40	1.66"	1.38"	12 feet	IR70E-712
1 1/2"	40	1.90"	1.62"	15 feet	SA517-15

Connector Sleeve

For use with **GR2168 Slotted Handrail** - page 103.

Ribbed outer surface. Attach using **Epoxy** - page 29.

When assembling, insert and allow to set in one section before inserting into mating section.

Use With	Package	Length	EXTRUDED ALUMINUM
GR2168	2	6"	GR2168S

Slip-Fit Splice Connector

Go to page 74 for more information. US Pat. 8757566

ZINC PLATED STEEL	SATIN STAINLESS STEEL
WR1166SF.PL	WR3166SF

Internal Splice

These **Sleeves** are set into place with **Lido-Weld Adhesive** - page 29.

Pipe Size	Tube OD	Tube ID	Length	STAINLESS STEEL	14 GAUGE STEEL	.050" BRASS
	1.50"	1.38"	5"	GR315LS		
	1.50"	1.40"	6"			14621-15
1 1/4"	1.66"	1.38"	5"	1224	1220	
1 1/2"	1.90"	1.62"	5"	1225	1222	
	2.00"	1.87"	6"	GR320LS		
	2.00"	1.90"	6"	GR3207S		14621-2
	3.00"	2.87"	6"	GR330LS		
	3.50"	3.38"	6"	GR335LS		
	4.00"	3.87"	6"	GR340LS		