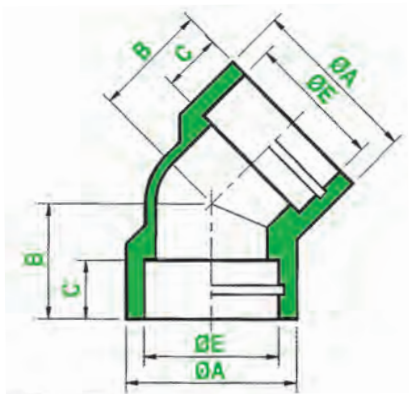


Elbows

3000 #

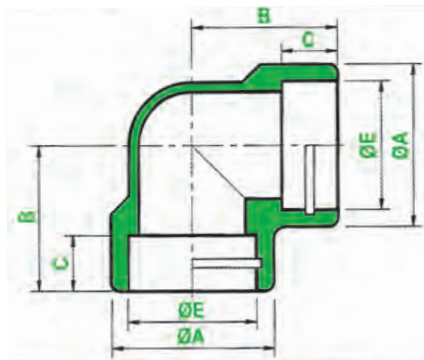
Socket Welding Or Capillary Ends



45°

Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		ØA (mm)	B (mm)	C (mm)	ØE (mm)	kg /pc
Nominal (Inch)	Actual (mm)					
1/2	16	22.20	19.0	10	16.1	0.07
■ 1/2	20	26.05	19.0	10	20.1	0.10
3/4	25	33.00	22.5	13	25.1	0.26
1	30	38.00	25.5	13	30.1	0.41
1¼	38	46.00	28.5	13	38.1	0.64
1½	44.5	56.00	33.0	13	44.6	0.69
2	57	63.50	36.0	16	57.3	1.09



90°

Material : CuNi 90/10 | CuNi 70/30

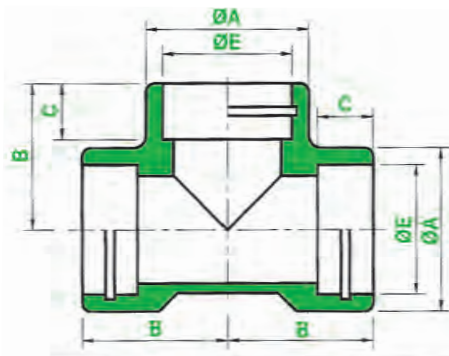
Outside Diameter of Pipe		ØA (mm)	B (mm)	C (mm)	ØE (mm)	kg /pc
Nominal (Inch)	Actual (mm)					
1/2	16	22.20	20	10	16.1	0.07
■ 1/2	20	26.05	25	10	20.1	0.10
3/4	25	33.00	29	13	25.1	0.26
1	30	38.00	34	13	30.1	0.32
1¼	38	46.00	38	13	38.1	0.59
1½	44.5	56.00	44	13	44.6	1.01
2	57	63.50	50	16	57.3	1.31

■ Not to EEMUA Dimensions

Equal Tees

3000 #

Socket Welding Or Capillary Ends



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		ØA (mm)	B (mm)	C (mm)	ØE (mm)	kg /pc
Nominal (Inch)	Actual (mm)					
1/2	16	22.20	20	10	16.1	0.09
■ 1/2	20	26.05	25	10	20.1	0.12
3/4	25	33.00	29	13	25.1	0.31
1	30	38.00	34	13	30.1	0.37
1¼	38	46.00	38	13	38.1	0.65
1½	44.5	56.00	44	13	44.6	1.08
2	57	63.50	50	16	57.3	1.43

■ Not to EEMUA Dimensions



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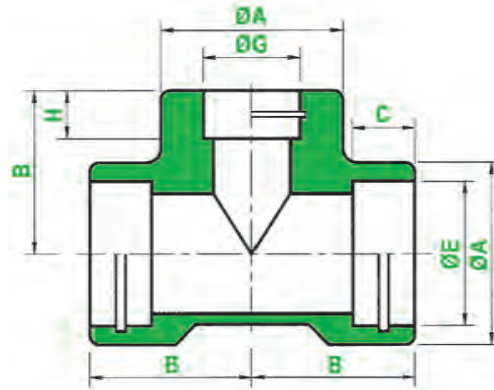
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Reducing Tees

3000 #

Socket Welding Or Capillary Ends



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe					ØA (mm)	B (mm)	ØE (mm)	C (mm)	ØG (mm)	H (mm)	kg /pc	
Nominal (Inch)		Actual (mm)										
■ 1/2	x	3/8	20	x	16	26.5	25	20.1	10	16.1	10	0.14
3/4	x	1/2	25	x	16	33	29	25.1	13	16.1	10	0.37
■ 3/4	x	1/2	25	x	20	33	29	25.1	13	20.1	10	0.35
1	x	1/2	30	x	16	38	34	30.1	13	16.1	10	0.47
■ 1	x	1/2	30	x	20	38	34	30.1	13	20.1	10	0.45
1	x	3/4	30	x	25	38	34	30.1	13	25.1	13	0.41
1¼	x	1/2	38	x	16	46	38	38.1	13	16.1	10	0.83
■ 1¼	x	1/2	38	x	20	46	38	38.1	13	20.1	10	0.81
1¼	x	3/4	38	x	25	46	38	38.1	13	25.1	13	0.77
1¼	x	1	38	x	30	46	38	38.1	13	30.1	13	0.73
1½	x	1/2	44.5	x	16	56	44	44.6	13	16.1	10	1.35
■ 1½	x	1/2	44.5	x	20	56	44	44.6	13	20.1	10	1.33
1½	x	3/4	44.5	x	25	56	44	44.6	13	25.1	13	1.29
1½	x	1	44.5	x	30	56	44	44.6	13	30.1	13	1.25
1½	x	1¼	44.5	x	38	56	44	44.6	13	38.1	13	1.17
2	x	1/2	57	x	16	63.5	50	57.3	16	16.1	10	1.89
■ 2	x	1/2	57	x	20	63.5	50	57.3	16	20.1	10	1.87
2	x	3/4	57	x	25	63.5	50	57.3	16	25.1	13	1.83
2	x	1	57	x	30	63.5	50	57.3	16	30.1	13	1.79
2	x	1¼	57	x	38	63.5	50	57.3	16	38.1	13	1.71
2	x	1½	57	x	44.5	63.5	50	57.3	16	44.6	13	1.62

■ Not to EEMUA 146 Dimensions



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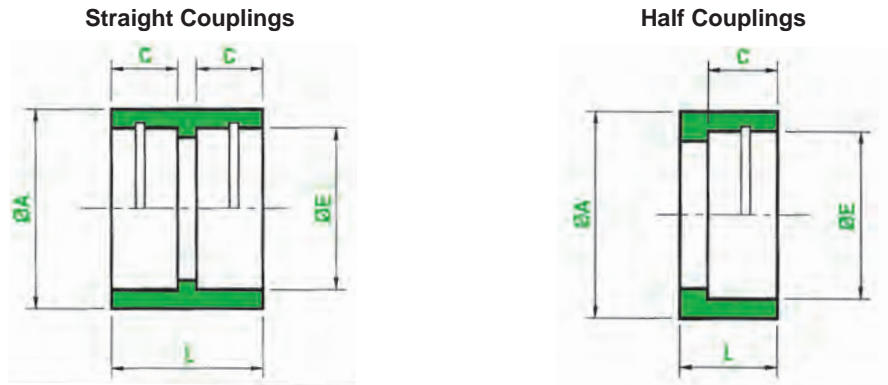
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Couplings

3000 #

Socket Welding Or Capillary Ends

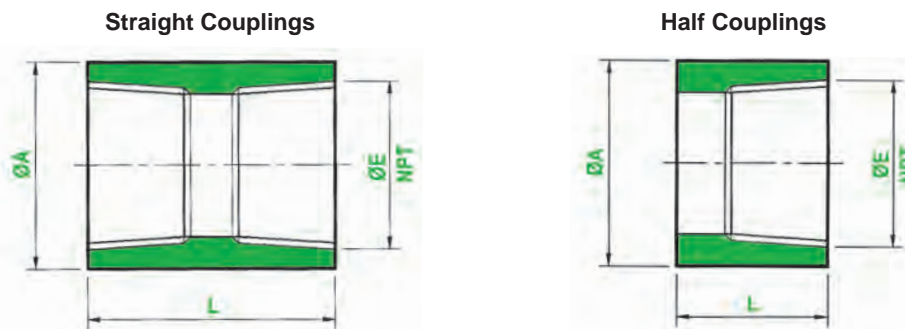


Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		Straight Couplings					Half Couplings				
Nominal (Inch)	Actual (mm)	ØA (mm)	L (mm)	ØE (mm)	C (mm)	kg /pc	ØA (mm)	L (mm)	ØE (mm)	C (mm)	kg /pc
1/2	16	23	23	16.1	10	0.04	23	13	16.1	10	0.02
■ 1/2	20	27	23	20.1	10	0.06	27	13	20.1	10	0.03
3/4	25	32	30	25.1	13	0.08	32	17	25.1	13	0.04
1	30	37	30	30.1	13	0.10	37	17	30.1	13	0.05
1¼	38	45	30	38.1	13	0.12	45	17	38.1	13	0.06
1½	44.5	52	31	44.6	13	0.17	52	18	44.6	13	0.08
2	57	64	38	57.3	16	0.22	64	22	57.3	16	0.11

■ Not to EEMUA 146 Dimensions

Threaded



Material : CuNi 90/10 | CuNi 70/30

Dimensions	EEMUA 146 or ANSI B16.11					
	Straight Couplings			Half Couplings		
ØE Thread (FNPT)	ØA (mm)	L (mm)	kg /pc	ØA (mm)	L (mm)	kg /pc
1/2"	29	48.0	0.16	29	24.0	0.08
3/4"	35	51.0	0.28	35	25.5	0.14
1"	44	60.0	0.38	44	30.0	0.19
1¼"	57	67.0	0.58	57	33.5	0.29
1½"	64	79.0	0.78	64	39.5	0.39
2"	76	86.0	1.42	76	43.0	0.71



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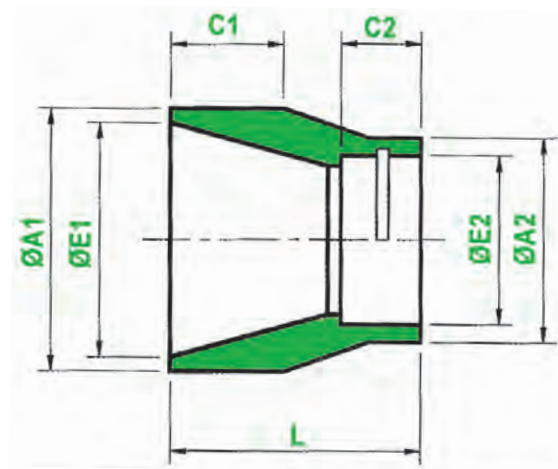
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Reducing Inserts

3000 #

Male End (BW End) x Capillary Ends (or SW End)



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe						ØA1 (mm)	ØE1 (mm)	C1 (mm)	ØA2 (mm)	ØE2 (mm)	C2 (mm)	L (mm)	kg /pc
Nominal (Inch)		Actual (mm)											
■ 1/2	x	3/8	20	x	16	20	18	12	23	16.1	10	23	0.03
3/4	x	1/2	25	x	16	25	22	12	23	16.1	10	23	0.05
■ 3/4	x	1/2	25	x	20	25	22	12	27	20.1	10	23	0.04
1	x	1/2	30	x	16	30	27	13	22	16.1	10	30	0.06
■ 1	x	1/2	30	x	20	30	27	13	27	20.1	10	24	0.06
1	x	3/4	30	x	25	30	27	13	32	25.1	13	24	0.06
1¼	x	1/2	38	x	16	38	35	17	23	16.1	10	41	0.12
■ 1¼	x	1/2	38	x	20	38	35	17	27	20.1	10	36	0.12
1¼	x	3/4	38	x	25	38	35	17	32	25.1	13	32	0.12
1¼	x	1	38	x	30	38	35	17	37	30.1	13	30	0.10
1½	x	1/2	44.5	x	16	44.5	41.5	17	23	16.1	10	43	0.18
■ 1½	x	1/2	44.5	x	20	44.5	41.5	17	27	20.1	10	42	0.18
1½	x	3/4	44.5	x	25	44.5	41.5	17	32	25.1	13	38	0.16
1½	x	1	44.5	x	30	44.5	41.5	17	37	30.1	13	34	0.15
1½	x	1¼	44.5	x	38	44.5	41.5	17	45	38.1	13	34	0.11
2	x	1/2	57	x	16	57	54	17	23	16.1	10	52	0.30
■ 2	x	1/2	57	x	20	57	54	17	27	20.1	10	43	0.31
2	x	3/4	57	x	25	57	54	17	32	25.1	13	45	0.31
2	x	1	57	x	30	57	54	17	37	30.1	13	45	0.32
2	x	1¼	57	x	38	57	54	17	45	38.1	13	42	0.28
2	x	1½	57	x	44.5	57	54	17	52	44.6	13	36	0.26

■ Not to EEMUA 146 Dimensions

* ØE2 in Threaded Type on Request



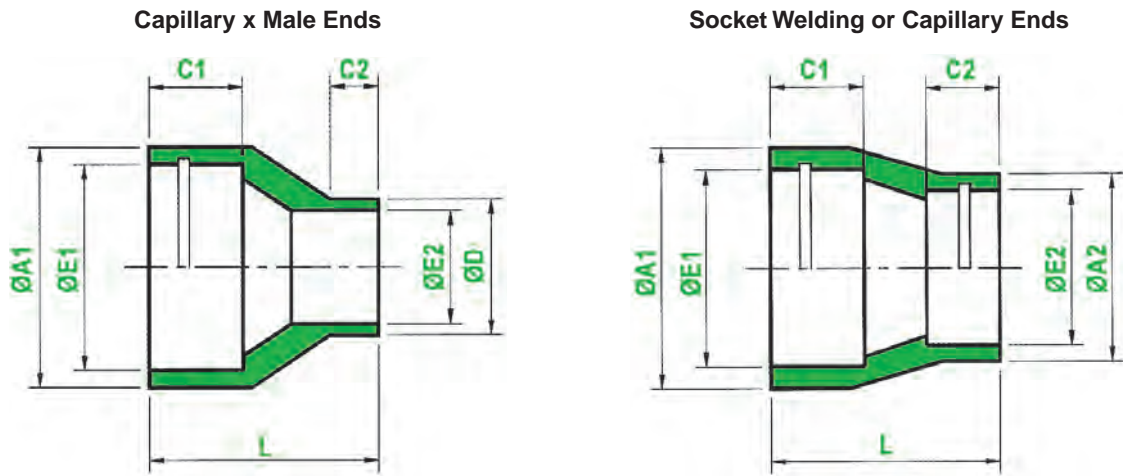
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Reducing Inserts & Couplings

Capillary x Male Ends & Socket Welding Or Capillary Ends



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe - ØD		Capillary x Male Ends										Socket Welding or Capillary Ends							
		ØA1 (mm)	ØE1 (mm)	C1 (mm)	ØD (mm)	ØE2 (mm)	C2 (mm)	L (mm)	kg /pc	ØA1 (mm)	ØE1 (mm)	C1 (mm)	ØA2 (mm)	ØE2 (mm)	C2 (mm)	L (mm)	kg /pc		
Nominal (Inch)	Actual (mm)																		
1/2 x 3/8	20 x 16	27	20.1	10	16	14	12	29	0.03	27	20.1	10	23	16.1	10	27	0.07		
3/4 x 3/8	25 x 16	32	25.1	13	16	14	12	31	0.04	32	25.1	13	23	16.1	10	33	0.07		
3/4 x 1/2	25 x 20	32	25.1	13	20	18	12	29	0.04	32	25.1	13	27	20.1	10	27	0.08		
1 x 3/8	30 x 16	37	30.1	13	16	14	12	35	0.05	37	30.1	13	23	16.1	10	35	0.09		
1 x 1/2	30 x 20	37	30.1	13	20	18	12	33	0.05	37	30.1	13	27	20.1	10	31	0.08		
1 x 3/4	30 x 25	37	30.1	13	25	22	12	30	0.06	37	30.1	13	32	25.1	13	28	0.08		
1¼ x 3/8	38 x 16	45	38.1	13	16	14	12	43	0.06	45	38.1	13	23	16.1	10	45	0.18		
1¼ x 1/2	38 x 20	45	38.1	13	20	18	12	41	0.07	45	38.1	13	27	20.1	10	41	0.17		
1¼ x 3/4	38 x 25	45	38.1	13	25	22	12	38	0.07	45	38.1	13	32	25.1	13	36	0.16		
1¼ x 1	38 x 30	45	38.1	13	30	27	13	37	0.09	45	38.1	13	37	30.1	13	33	0.15		
1½ x 3/8	44.5 x 16	-	-	-	-	-	-	-	-	52	44.6	13	23	16.1	10	51	0.20		
1½ x 1/2	44.5 x 20	52	44.6	13	20	18	12	44	0.10	52	44.6	13	27	20.1	10	47	0.21		
1½ x 3/4	44.5 x 25	52	44.6	13	25	22	12	42	0.12	52	44.6	13	32	25.1	13	42	0.22		
1½ x 1	44.5 x 30	52	44.6	13	30	27	13	41	0.13	52	44.6	13	37	30.1	13	39	0.23		
1½ x 1¼	44.5 x 38	52	44.6	13	38	35	17	41	0.14	52	44.6	13	45	38.1	13	36	0.24		
2 x 3/8	57 x 16	-	-	-	-	-	-	-	-	64	57.3	16	23	16.1	10	62	0.28		
2 x 1/2	57 x 20	-	-	-	-	-	-	-	-	64	57.3	16	27	20.1	10	58	0.27		
2 x 3/4	57 x 25	64	57.3	16	25	22	12	49	0.14	64	57.3	16	32	25.1	13	54	0.26		
2 x 1	57 x 30	64	57.3	16	30	27	13	48	0.19	64	57.3	16	37	30.1	13	50	0.25		
2 x 1¼	57 x 38	64	57.3	16	38	35	17	48	0.21	64	57.3	16	45	38.1	13	47	0.24		
2 x 1½	57 x 44.5	64	57.3	16	44.5	41.5	17	44	0.23	64	57.3	16	52	44.6	13	41	0.23		

* ØE1 in Thread Type on request

* ØE1 & ØE2 in Thread Type on request



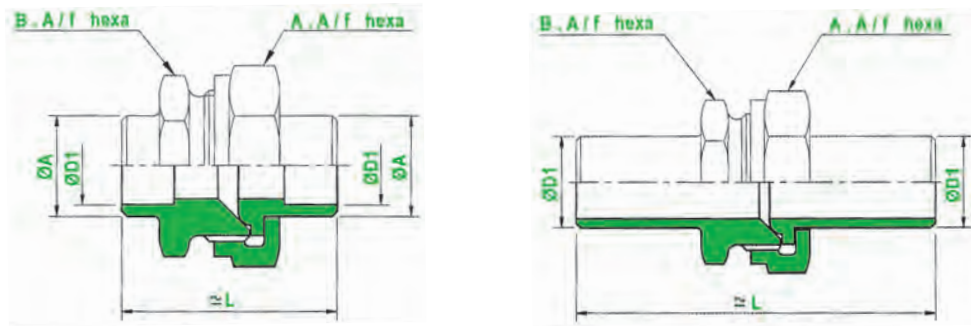
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Union Connectors

3000 #



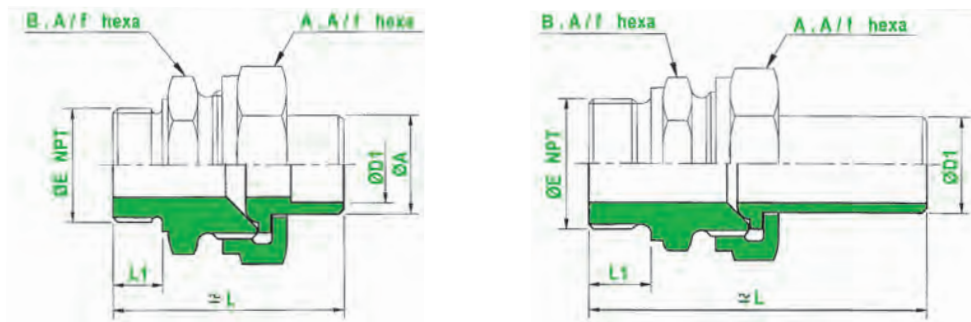
Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		Socket Welding or Capillary Ends					Butt Welding Ends			
Nominal (Inch)	ØD1 Actual (mm)	ØA (mm)	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc
1/2	16	23	62	42	36	0.24	95	42	36	0.35
■ 1/2	20	27	62	42	36	0.31	99	42	36	0.45
3/4	25	32	73	50	46	0.44	101	50	46	0.59
1	30	37	73	60	50	0.55	105	60	50	0.88
1¼	38	45	79	70	65	0.73	110	70	65	1.15
1½	44.5	52	84	70	65	1.08	113	70	65	1.54
2	57	64	94	85	80	1.54	120	85	80	2.30

* Other dimensions, wall thicknesses and outside diameters are also available upon request

Male Union Connectors

3000 #



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		Socket Welding or Capillary End x Male							Butt Welding End x Male					
Nominal (Inch)	ØD1 Actual (mm)	ØE Thread (MNPT)	ØA (mm)	L1 (mm)	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc	ØE Thread (MNPT)	L1 (mm)	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc
1/2	16	3/4"	23	19	74	42	36	0.35	3/4"	19	84	42	36	0.37
■ 1/2	20	3/4"	27	19	79	42	36	0.47	3/4"	19	92	42	36	0.50
3/4	25	1"	32	21	82	50	46	0.55	1"	21	95	50	46	0.60
1	30	1¼"	37	23	89	60	50	0.73	1¼"	23	100	60	50	0.80
1¼	38	1½"	45	25	97	70	65	1.05	1½"	25	106	70	65	1.15
1½	44.5	1¾"	52	25.5	100	70	65	1.55	1¾"	25.5	115	70	65	1.65
2	57	2"	64	27.5	109	85	80	2.00	2"	27.5	130	85	80	2.15

* Threads other than NPT are also available upon request

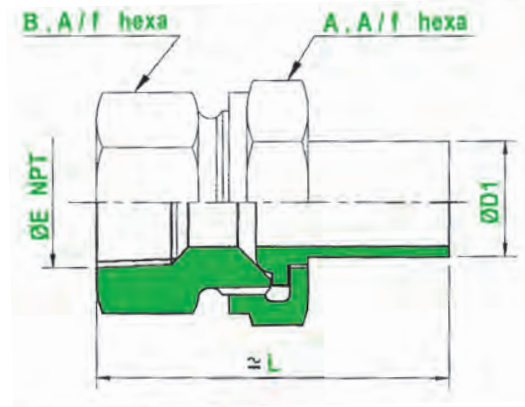
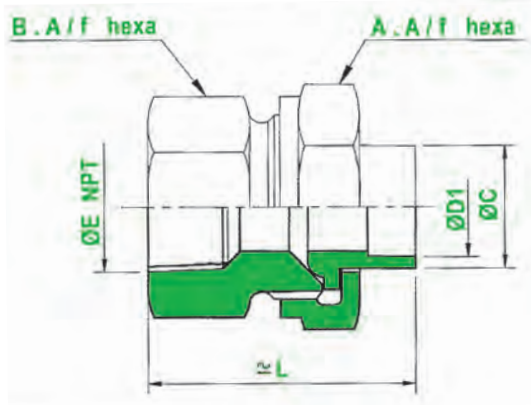
* Other dimensions, wall thicknesses and outside diameters are also available upon request | ■ Not to EEMUA 146 Dimensions



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Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		EEMUA 146 or ANSI B16.11										
		Socket Welding or Capillary End x Female						Butt Welding End x Female				
Nominal (Inch)	ØD1 Actual (mm)	ØE Thread (FNPT)	ØC (mm)	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc	ØE Thread (FNPT)	≈L (mm)	A.A/f (mm)	B.A/f (mm)	kg /pc
1/2	16	1/2"	23	50	42	27	0.25	1/2"	60	42	27	0.25
■ 1/2	20	1/2"	27	51	42	27	0.31	1/2"	61	42	27	0.28
3/4	25	3/4"	32	56	50	32	0.43	3/4"	69	50	32	0.38
1	30	1"	37	60	60	41	0.45	1"	73	60	41	0.41
1¼	38	1¼"	45	68	70	50	0.72	1¼"	87	70	50	0.68
1½	44.5	1½"	52	70	70	55	0.85	1½"	87	70	55	0.77
2	57	2"	64	76	85	70	1.35	2"	96	85	70	1.05

* Threads other than NPT are also available upon request

* Other dimensions, wall thicknesses and outside diameters are also available upon request

■ Not to EEMUA 146 Dimensions



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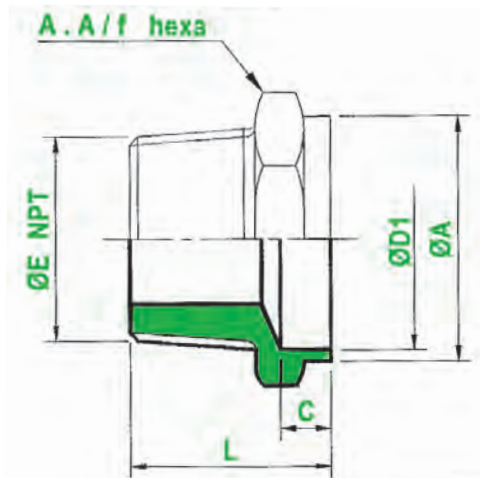
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Straight Male Connectors

3000 #

Socket Welding Or Capillary End x Male Thread



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe			ØD1 Actual (mm)	ØE Thread (MNPT)	ØA (mm)	C (mm)	L (mm)	A.A/f (mm)	kg /pc
Nominal (Inch)									
1/2	x	1/2	16	1/2"	23	10	30	22	0.10
1/2	x	3/4	16	3/4"	23	10	33	30	0.13
1/2	x	1	16	1"	23	10	38	36	0.28
■ 1/2	x	1/2	20	1/2"	27	10	33	27	0.11
■ 1/2	x	3/4	20	3/4"	27	10	34	30	0.14
■ 1/2	x	1	20	1"	27	10	39	36	0.25
■ 1/2	x	1 1/4	20	1 1/4"	27	10	43	46	0.51
3/4	x	3/4	25	3/4"	32	13	35	32	0.15
3/4	x	1	25	1"	32	13	39	36	0.20
3/4	x	1 1/4	25	1 1/4"	32	13	43	46	0.46
3/4	x	1 1/2	25	1 1/2"	32	13	44	50	0.62
1	x	3/4	30	3/4"	37	13	38	41	0.24
1	x	1	30	1"	37	13	41	41	0.25
1	x	1 1/4	30	1 1/4"	37	13	44	46	0.39
1	x	1 1/2	30	1 1/2"	37	13	45	50	0.55
1 1/4	x	3/4	38	3/4"	45	13	44	46	0.30
1 1/4	x	1	38	1"	45	13	44	46	0.27
1 1/4	x	1 1/4	38	1 1/4"	45	13	45	46	0.32
1 1/4	x	1 1/2	38	1 1/2"	45	13	46	50	0.36
1 1/2	x	1	44.5	1"	52	13	47	55	0.40
1 1/2	x	1 1/4	44.5	1 1/4"	52	13	48	55	0.48
1 1/2	x	1 1/2	44.5	1 1/2"	52	13	48	55	0.48
1 1/2	x	2	44.5	2"	52	13	51	65	0.87
2	x	1 1/4	57	1 1/4"	64	16	51	65	0.68
2	x	1 1/2	57	1 1/2"	64	16	51	65	0.65
2	x	2	57	2"	64	16	51	65	0.57
2	x	2 1/2	57	2 1/2"	64	16	60	75	1.17

* Threads other than NPT are also available upon request

* Other dimensions, wall thicknesses and outside diameters are also available upon request | ■ Not to EEMUA 146 Dimensions



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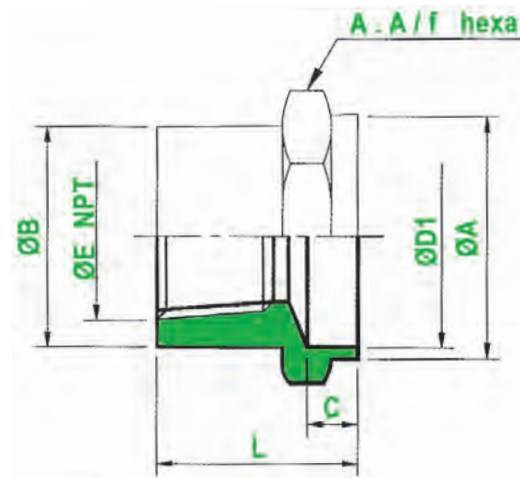
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Straight Female Connectors

3000 #

Socket Welding Or Capillary End x Female Thread



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe			ØD1 Actual (mm)	ØE Thread (FNPT)	ØA (mm)	C (mm)	ØB (mm)	L (mm)	A.A/f (mm)	kg /pc
Nominal (Inch)										
1/2	x	1/2	16	1/2"	23	10	27	31	27	0.07
1/2	x	3/4	16	3/4"	23	10	32	33	32	0.10
1/2	x	1	16	1"	23	10	40	38	41	0.20
■ 1/2	x	1/2	20	1/2"	27	10	27	28	27	0.08
■ 1/2	x	3/4	20	3/4"	27	10	32	32	32	0.11
■ 1/2	x	1	20	1"	27	10	40	37	41	0.31
■ 1/2	x	1 1/4	20	1 1/4"	27	10	49	40	50	0.29
3/4	x	3/4	25	3/4"	32	13	32	31	32	0.10
3/4	x	1	25	1"	32	13	40	35	41	0.20
3/4	x	1 1/4	25	1 1/4"	32	13	49	39	50	0.29
3/4	x	1 1/2	25	1 1/2"	32	13	55	41	55	0.32
1	x	3/4	30	3/4"	37	13	32	31	41	0.23
1	x	1	30	1"	37	13	40	35	41	0.19
1	x	1 1/4	30	1 1/4"	37	13	49	38	50	0.28
1	x	1 1/2	30	1 1/2"	37	13	55	40	55	0.30
1 1/4	x	3/4	38	3/4"	45	13	32	39	46	0.39
1 1/4	x	1	38	1"	45	13	40	39	46	0.31
1 1/4	x	1 1/4	38	1 1/4"	45	13	49	40	50	0.29
1 1/4	x	1 1/2	38	1 1/2"	45	13	55	42	55	0.32
1 1/2	x	1	44.5	1"	52	13	40	43	55	0.55
1 1/2	x	1 1/4	44.5	1 1/4"	52	13	49	39	55	0.50
1 1/2	x	1 1/2	44.5	1 1/2"	52	13	55	40	55	0.43
1 1/2	x	2	44.5	2"	52	13	70	43	70	0.65
2	x	1 1/4	57	1 1/4"	64	16	49	45	65	0.80
2	x	1 1/2	57	1 1/2"	64	16	55	40	65	0.73
2	x	2	57	2"	64	16	70	40	70	0.65
2	x	2 1/2	57	2 1/2"	64	16	85	49	85	0.97

* Threads other than NPT are also available upon request

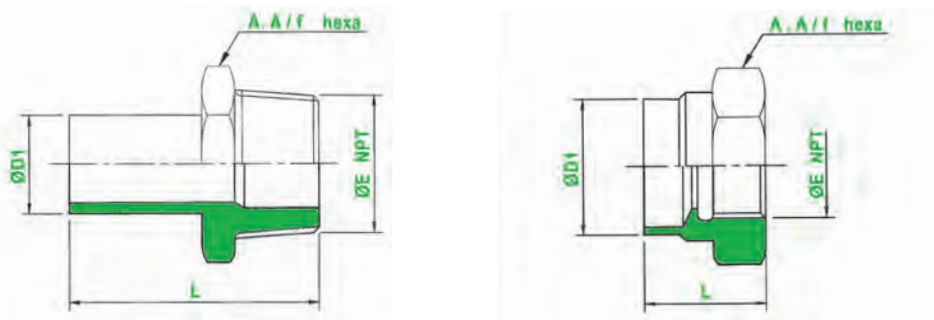
* Other dimensions, wall thicknesses and outside diameters are also available upon request | ■ Not to EEMUA 146 Dimensions



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Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe				Butt Welding End x Male Thread				Butt Welding End x Female Thread			
Nominal (Inch)		ØD1 Actual (mm)	ØE Thread (MNPT)	L (mm)	A.A/f (mm)	kg /pc	ØE Thread (FNPT)	L (mm)	A.A/f (mm)	kg /pc	
1/2	x 1/2	16	1/2"	40	27	0.15	1/2"	34	27	0.07	
■ 1/2	x 1/2	20	1/2"	40	27	0.16	1/2"	34	27	0.07	
■ 1/2	x 3/4	20	3/4"	42.5	29.5	0.195	3/4"	37	32	0.10	
3/4	x 3/4	25	3/4"	45	32	0.22	3/4"	34	32	0.15	
1	x 3/4	30	3/4"	48	32	0.28	3/4"	41	41	0.19	
1	x 1	30	1"	53	38	0.32	1"	39	41	0.25	
1 1/4	x 1	38	1"	60	50	0.50	1"	50	55	0.35	
1 1/2	x 1 1/2	44.5	1 1/2"	60	50	0.60	1 1/2"	47	55	0.40	
2	x 1 1/2	57	1 1/2"	65	65	0.85	1 1/2"	47	70	0.50	
2	x 2	57	2"	70	65	0.98	2"	51	70	0.50	

* Threads other than NPT are also available upon request

* Other dimensions, wall thicknesses and outside diameters are also available upon request | ■ Not to EEMUA 146 Dimensions

Sprinkler Bushes & Male Plugs



Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		Sprinkler Bushes					3000 # Male Plugs				
Nominal (Inch)	Actual (mm)	ØE Thread (FNPT)	ØA (mm)	ØC (mm)	B (mm)	kg /pc	ØE Thread (MNPT)	B (mm)	C (mm)	C.A/f (mm)	kg /pc
1/2	16	On Application	16	18	11	0.01	1/2"	8	18	19	0.17
■ 1/2	20		20	22	11	0.01	-	-	-	-	-
3/4	25		25	27	11	0.02	3/4"	10	18	24	0.30
1	30		30	32	12	0.03	1"	10	21	30	0.55
1 1/4	38		38	40	16	0.06	1 1/4"	14	22	41	0.95
1 1/2	44.5		44.5	47	16	0.08	1 1/2"	16	22	41	1.10
2	57		57	59	16	0.09	2"	17	22	50	1.85

* Threads other than NPT are also available upon request | * ØA can be male thread end.

* Other dimensions, wall thicknesses and outside diameters are also available upon request | ■ Not to EEMUA 146 Dimensions



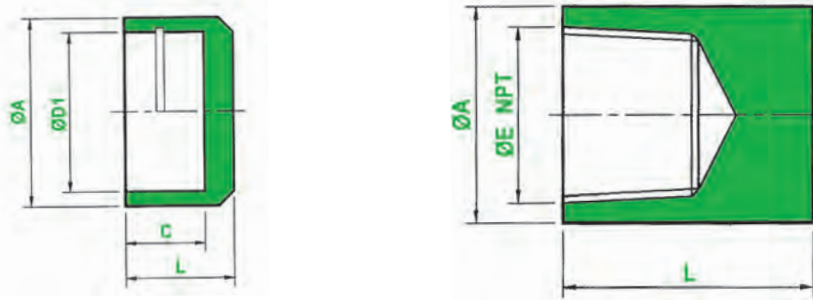
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End Caps

3000 #



Material : CuNi 90/10 | CuNi 70/30

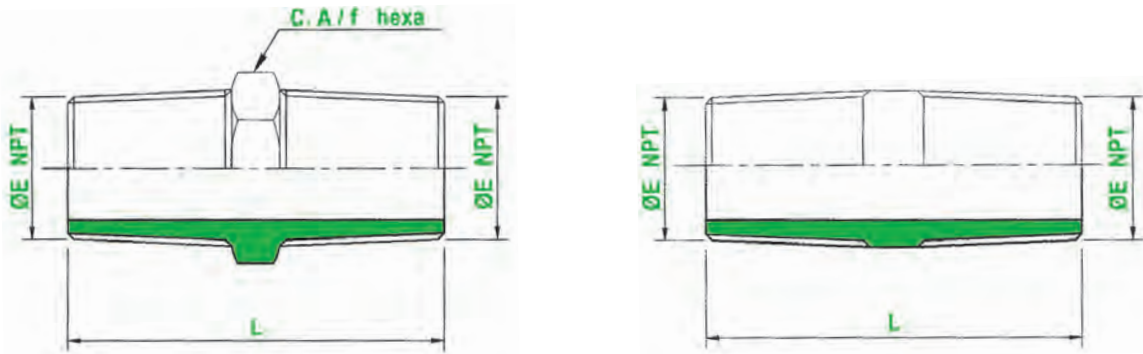
Outside Diameter of Pipe		Socket Welding or Capillary Ends				EEMUA 146 or ANSI B16.11			
Nominal (Inch)	ØD1 Actual (mm)	ØA (mm)	L (mm)	C (mm)	kg /pc	Female Threaded			
						ØE Thread (FNPT)	ØA (mm)	L (mm)	kg /pc
1/2	16	23	14.0	10	0.04	1/2"	29	32	0.17
■ 1/2	20	27	14.5	10	0.05	1/2"	29	32	0.17
3/4	25	32	15.0	13	0.07	3/4"	35	37	0.30
1	30	37	16.0	13	0.08	1"	44	38	0.55
1¼	38	45	20.0	13	0.13	1¼"	57	41	0.95
1½	44.5	52	20.5	13	0.19	1½"	64	41	1.10
2	57	64	20.5	16	0.22	2"	76	42	1.85

* Threads other than NPT are also available upon request | ■ Not to EEMUA 146 Dimensions

Nipples

3000 #

Threaded



Material : CuNi 90/10 | CuNi 70/30

Dimensions	Hexagonal Nipples			Pipe Nipple	
	ØE MNPT	L (mm)	C.A/f (mm)	kg /pc	L (mm)
1/4"	42	17	0.05	42	0.04
3/8"	47	22	0.11	47	0.10
1/2"	48	24	0.13	48	0.12
3/4"	52	30	0.20	52	0.19
1"	60	36	0.29	60	0.28
1¼"	72	46	0.36	72	0.35
1½"	74	50	0.43	74	0.42
2"	78	65	0.59	78	0.58

* Threads other than NPT are also available upon request

* Other dimensions, wall thicknesses and outside diameters are also available upon request



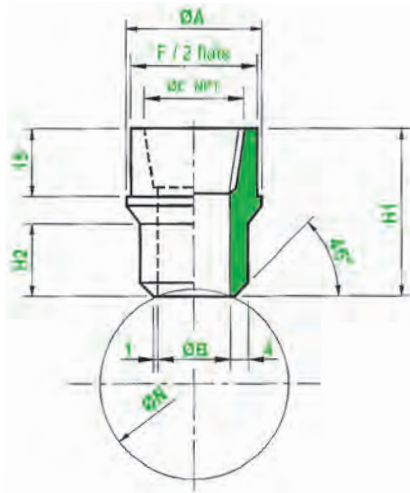
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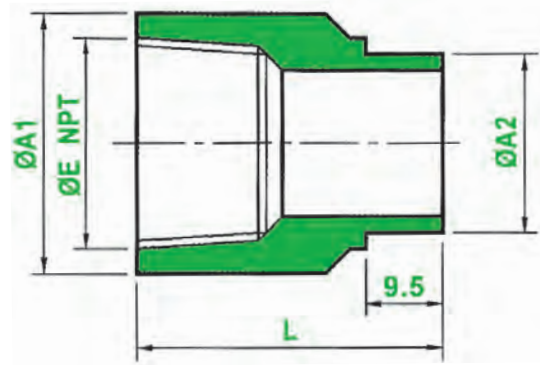


Threaded Bosses & Couplets

3000 #



Thread Bosses



Couplets

Material : CuNi 90/10 | CuNi 70/30

Outside Diameter of Pipe		Threaded Bosses							Couplets				
Nominal (Inch)	Actual (mm)	ØE Thread (FNPT)	ØA (mm)	ØB (mm)	H1 (mm)	H2 (mm)	F/2 Flats (mm)	kg /pc	ØE Thread (FNPT)	ØA1 (mm)	ØA2 (mm)	L (mm)	kg /pc
1/4	12	-	-	-	-	-	-	-	1/4"	20	13.7	30	0.06
3/8	16	-	-	-	-	-	-	-	3/8"	22	17.1	30	0.11
1/2	16	1/2"	35	17	37	13	31	0.17	-	-	-	-	-
■ 1/2	20	-	-	-	-	-	-	-	1/2"	30	21.3	33.5	0.13
3/4	25	3/4"	40	23	39	16	35	0.13	3/4"	35	26.7	33.5	0.21
1	30	1"	45	29	43	16	40	0.28	1"	46	33.4	43	0.26
1¼	38	-	-	-	-	-	-	-	1¼"	57	42.2	47.5	0.34
1½	44.5	1½"	60	43.5	50	20	55	0.48	1½"	64	48.3	51	0.37
2	57	-	-	-	-	-	-	-	2"	76	60.3	57.5	0.41

* Threads other than NPT are also available upon request

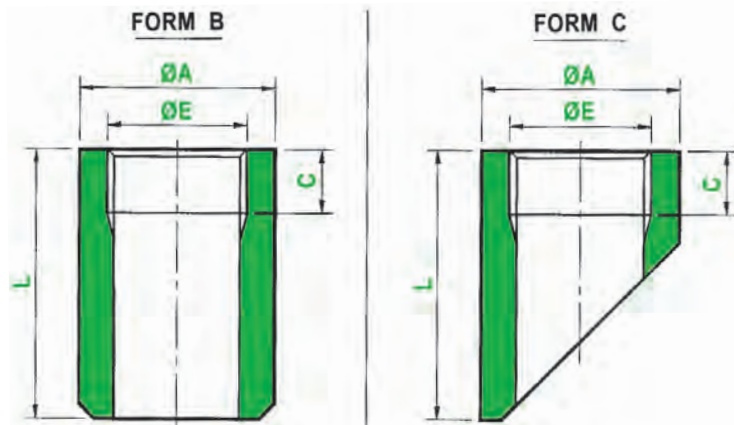
■ Not to EEMUA 146 Dimensions



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Material : CuNi 90/10 | CuNi 70/30

ØE Thread (FNPT)	DIN 86103								
	FORM B				ØE Thread (FNPT)	FORM C			
	ØA (mm)	C (mm)	L (mm)	kg /pc		ØA (mm)	C (mm)	L (mm)	kg /pc
1/4"	20	12	20	0.03	-	-	-	-	-
3/8"	25	12	20	0.05	-	-	-	-	-
1/2"	30	14	23	0.08	1/2"	30	14	50	0.14
1/2"	30	14	50	0.17	-	-	-	-	-
1/2"	30	14	75	0.25	-	-	-	-	-
1/2"	30	14	100	0.34	-	-	-	-	-
1/2"	30	14	125	0.44	-	-	-	-	-
3/4"	38	16	25	0.14	3/4"	38	16	60	0.24
3/4"	38	16	50	0.28	-	-	-	-	-
3/4"	38	16	75	0.42	-	-	-	-	-
3/4"	38	16	100	0.56	-	-	-	-	-
3/4"	38	16	125	0.70	-	-	-	-	-
1"	45	18	28	0.19	1"	45	18	70	0.35
1"	45	18	50	0.35	-	-	-	-	-
1"	45	18	75	0.52	-	-	-	-	-
1"	45	18	100	0.70	-	-	-	-	-
1"	45	18	125	0.88	-	-	-	-	-
1 1/4"	55	20	30	0.29	1 1/4"	55	20	80	0.63
1 1/2"	60	22	32	0.37	1 1/2"	62	22	100	0.92
2"	75	23	40	0.68	2"	75	23	111	1.25

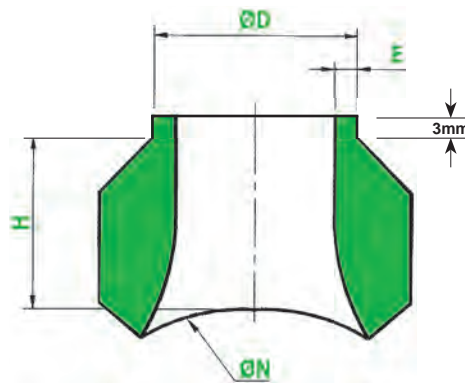
* Other lengths are possible on request



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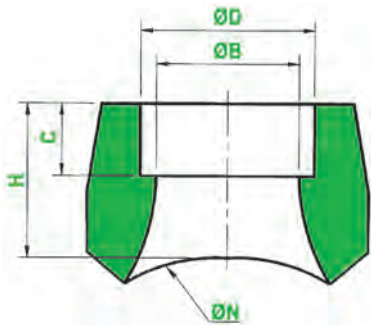
Material : CuNi 90/10 | CuNi 70/30

Branch - ØD		Outside Diameter of Header - ØN		EEMUA 146					
				Bar 16			Bar 20		
Nominal (Inch)	Actual (mm)	Nominal (Inch)	Actual (mm)	E (mm)	H (mm)	kg /pc	E (mm)	H (mm)	kg /pc
1/2	16	1/2 to 1½	16 to 44.5	2.0	19.05	0.07	2.0	19.05	0.07
1/2	16	2 to 24	57 to 610	2.0	17.50	0.07	2.0	17.50	0.07
3/4	25	3/4 to 1½	25 to 44.5	2.0	22.20	0.11	2.0	22.20	0.11
3/4	25	2 to 24	57 to 610	2.0	20.60	0.11	2.0	20.60	0.11
1	30	1 to 1½	30 to 44.5	2.5	27.00	0.18	2.5	27.00	0.18
1	30	2 to 24	57 to 610	2.5	22.20	0.18	2.5	22.20	0.18
1¼	38	1¼ to 1½	38 to 44.5	2.5	30.20	0.32	2.5	30.20	0.32
1¼	38	2 to 24	57 to 610	2.5	25.40	0.32	2.5	25.40	0.32
1½	44.5	1½	44.5	2.5	33.30	0.36	2.5	33.30	0.36
1½	44.5	2 to 24	57 to 610	2.5	28.60	0.36	2.5	28.60	0.36
2	57	2 to 2½	57 to 76.1	2.5	38.10	0.68	2.5	38.10	0.68
2	57	3 to 24	88.9 to 610	2.5	33.30	0.68	2.5	33.30	0.68
2½	76.1	3 to 4	76.1 to 108	2.5	47.60	1.40	2.5	47.60	1.40
2½	76.1	6 to 24	159 to 610	2.5	44.50	1.40	2.5	44.50	1.40
3	88.9	3 to 4	88.9 to 108	2.5	47.60	1.70	2.5	47.60	1.70
3	88.9	6 to 24	159 to 610	2.5	44.50	1.70	2.5	44.50	1.70
4	108	4	108	3.0	46.80	3.00	3.0	46.80	3.00
4	108	6	159	3.0	52.40	3.00	3.0	52.40	3.00
4	108	8 to 24	219.1 to 610	3.0	49.20	6.40	3.0	49.20	6.40
6	159	6 to 24	159 to 610	3.0	60.30	6.400	3.5	60.30	6.400
8	219.1	8 to 24	219 to 610	4.0	69.90	12.70	4.5	69.90	12.70
10	267	10 to 24	267 to 610	4.5	77.80	17.70	5.5	77.80	17.70
12	323.9	12 to 24	323.9 to 610	5.5	85.70	29.50	7.0	85.70	29.50
14	368	14 to 24	368 to 610	6.5	88.90	31.80	8.0	88.90	31.80
16	419.1	16 to 24	419.1 to 610	7.0	93.70	41.70	9.0	93.70	41.70
18	457.2	18 to 24	457.2 to 610	8.0	96.80	53.20	9.5	96.80	53.20
20	508	20 to 24	508 to 610	8.5	115.90	68.30	11.0	115.90	68.30
24	610	24	610	10.5	115.90	91.20	13.0	115.90	91.20



Sockolets

3000 #



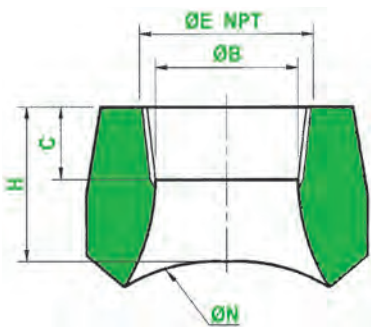
Material : CuNi 90/10 | CuNi 70/30

Branch - ØD		Outside Diameter of Header - ØN		EEMUA 146			
Nominal (Inch)	Actual (mm)	Nominal (Inch)	Actual (mm)	ØB (mm)	H (mm)	C (mm)	kg /pc
1/2	16	3/4 to 1½	25 to 44.5	12.0	25.4	10	0.10
■ 1/2	20	2 to 36	57 to 914	12.0	23.8	10	0.10
3/4	25	1 to 1½	30 to 44.5	21.0	26.9	13	0.13
3/4	25	2 to 36	57 to 914	21.0	25.4	13	0.13
1	30	1¼ to 1½	38 to 44.5	25.0	33.3	13	0.22
1	30	2 to 36	57 to 914	25.0	28.6	13	0.22
1¼	38	2 to 36	57 to 914	33.0	33.3	13	0.35
1¼	38	2 to 36	57 to 914	33.0	33.3	13	0.35
1½	44.5	2 to 36	57 to 914	39.5	30.2	13	0.50
1½	44.5	2 to 36	57 to 914	39.5	30.2	13	0.50
2	57	2½ to 36	76.1 to 914	52.0	38.1	16	0.90
2	57	2½ to 36	76.1 to 914	52.0	38.1	16	0.90

■ Not to EEMUA 146 Dimensions

Threadolet

3000 #



Material : CuNi 90/10 | CuNi 70/30

Branch - ØE		Outside Diameter of Header - ØA		EEMUA 146			
Actual (FNPT)	Nominal (Inch)	Actual (mm)	ØB (bore) (mm)	H (mm)	C (mm)	kg /pc	
1/2"	3/4 to 1½	25 to 44.5	11.74	25.4	13.5	0.10	
1/2"	2 to 36	57 to 914	11.74	23.8	13.5	0.10	
3/4"	1 to 1½	30 to 44.5	15.58	26.9	14	0.13	
3/4"	2 to 36	57 to 914	15.58	25.4	14	0.13	
1"	1¼ to 1½	38 to 44.5	20.70	33.3	17.5	0.22	
1"	2 to 36	57 to 914	20.70	28.6	17.5	0.22	
1¼"	2 to 36	57 to 914	29.50	33.3	18	0.35	
1¼"	2 to 36	57 to 914	29.50	33.3	18	0.35	
1½"	2 to 36	57 to 914	34.02	30.2	18.5	0.50	
1½"	2 to 36	57 to 914	34.02	30.2	18.5	0.50	
2"	2½ to 36	76.1 to 914	42.82	38.1	19	0.90	
2"	2½ to 36	76.1 to 914	42.82	38.1	19	0.90	



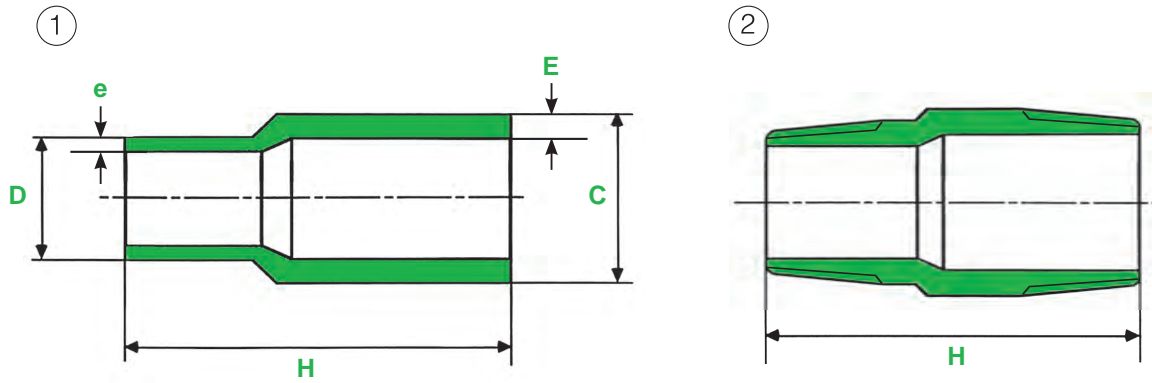
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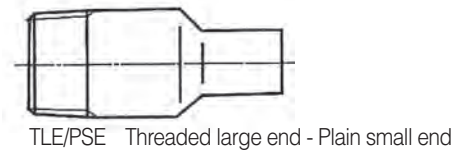
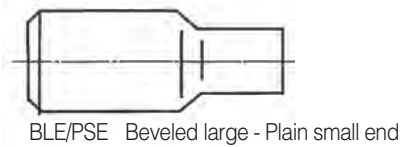
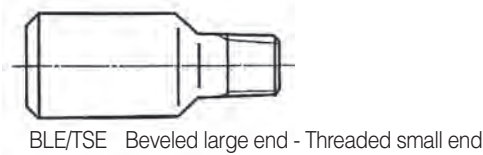
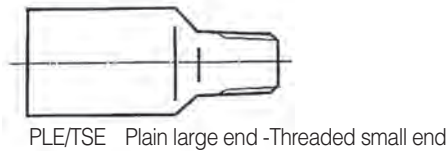
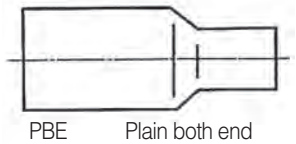
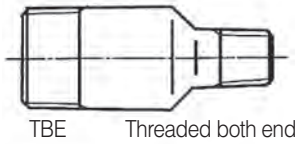


Concentric Swage Nipples

3000 #



Material : CuNi 90/10 | CuNi 70/30



			Outside Diameter of Pipe		E (mm)	e (mm)	H (mm)	kg /pc
Nominal (Inch)		Actual						
		C (mm)	D (mm)					
3/4	x 1/2	25	x 16	4	4	40	0.13	
1	x 1/2	30	x 16	5	4	55	0.17	
1	x 3/4	30	x 25	5	4	55	0.22	
1 1/4	x 1/2	38	x 16	5	4	60	0.28	
1 1/4	x 3/4	38	x 25	5	4	60	0.32	
1 1/4	x 1	38	x 30	5	5	60	0.37	
1 1/2	x 1/2	44.5	x 16	5.5	4	70	0.39	
1 1/2	x 3/4	44.5	x 25	5.5	4	70	0.435	
1 1/2	x 1	44.5	x 30	5.5	5	70	0.495	
1 1/2	x 1 1/4	44.5	x 38	5.5	5	70	0.57	
2	x 1/2	57	x 16	6	4	80	0.45	
2	x 3/4	57	x 25	6	4	80	0.52	
2	x 1	57	x 30	6	5	80	0.605	
2	x 1 1/4	57	x 38	6	5	80	0.715	
2	x 1 1/2	57	x 44.5	6	5.5	80	0.83	
2 1/2	x 1/2	76.1	x 16	7.5	4	90	0.65	
2 1/2	x 3/4	76.1	x 25	7.5	4	90	0.75	
2 1/2	x 1	76.1	x 30	7.5	5	90	0.89	
2 1/2	x 1 1/4	76.1	x 38	7.5	5	90	1.07	
2 1/2	x 1 1/2	76.1	x 44.5	7.5	5.5	90	1.28	
2 1/2	x 2	76.1	x 57	7.5	6	90	1.54	
3	x 1/2	88.9	x 16	8	4	95	0.8	
3	x 3/4	88.9	x 25	8	4	95	0.93	
3	x 1	88.9	x 30	8	5	95	1.083	
3	x 1 1/4	88.9	x 38	8	5	95	1.29	
3	x 1 1/2	88.9	x 44.5	8	5.5	95	1.6	
3	x 2	88.9	x 57	8	6	95	1.9	
3	x 2 1/2	88.9	x 76.1	8	7.5	95	2.4	

* The above swage nipples are machined from forged, wrought rods with fine grain structures.

* Other wall thickness, dimensions and lengths are available on request.

* Concentric swage nipple © male threaded type on request.