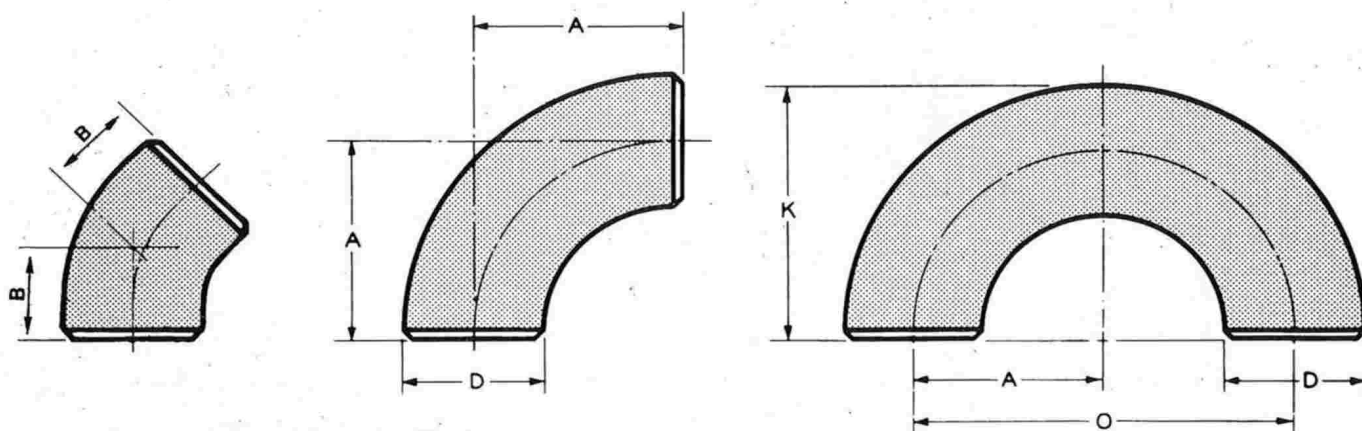


ANSI BUTTWELDING FITTINGS

B 16.9

CURVE LONG RADIUS LONG RADIUS ELBOWS AND RETURNS

ANSI B16.9



Dimensioni in mm. / Dimensions are in millimeters

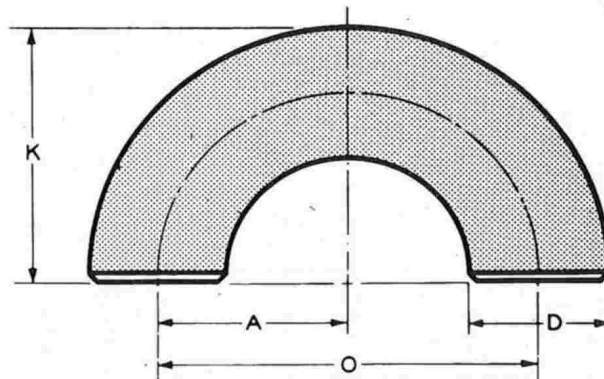
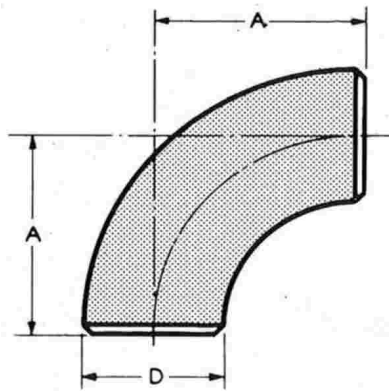
Ø	D	A	B	O	K
1/2"	21	38	16	76	48
3/4"	27	29	11	57	43
1"	33	38	22	76	56
1" 1/4	42	48	25	95	70
1" 1/2	48	57	29	114	83
2"	60	76	35	152	106
2" 1/2	73	95	44	191	132
3"	89	114	51	229	159
3" 1/2	102	133	57	267	184
4"	114	152	64	305	210
5"	141	190	79	381	262
6"	168	229	95	457	313
8"	219	305	127	610	414
10"	273	381	159	762	518
12"	324	457	190	914	619
14"	356	533	222	1067	711
16"	406	610	254	1219	813
18"	457	686	286	1372	914
20"	508	762	318	1524	1016
22"	559	838	343	1676	1118
24"	610	914	381	1829	1219

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

**CURVE SHORT RADIUS
SHORT RADIUS ELBOWS AND RETURNS**

ANSI B16.28



Dimensioni in mm. / Dimensions are in millimeters

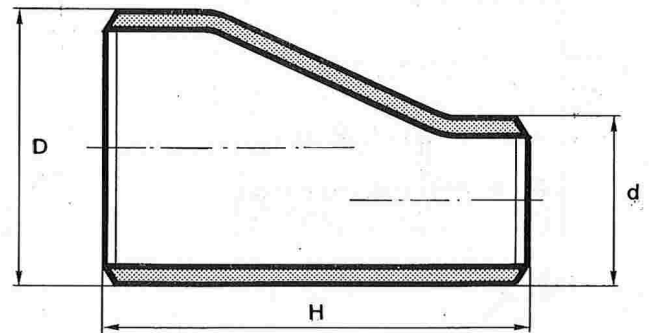
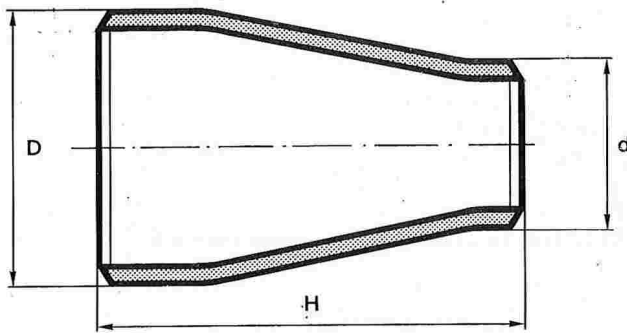
Ø	D	A	O	K
1"	33	25	51	41
1" 1/4	42	32	64	52
1" 1/2	48	38	76	62
2"	60	51	102	81
2" 1/2	73	64	127	100
3"	89	76	152	121
3" 1/2	102	89	178	140
4"	114	102	203	159
5"	141	127	254	197
6"	168	152	305	237
8"	219	203	406	313
10"	273	254	508	391
12"	324	305	610	467
14"	356	356	711	533
16"	406	406	813	610
18"	457	457	914	686
20"	508	508	1016	762
22"	559	559	1118	838
24"	610	610	1219	914

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

RIDUZIONI REDUCERS

ANSI B16.9



Dimensioni in mm. / Dimensions are in millimeters

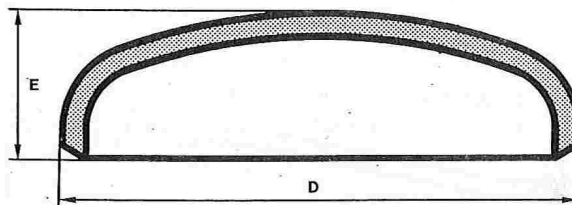
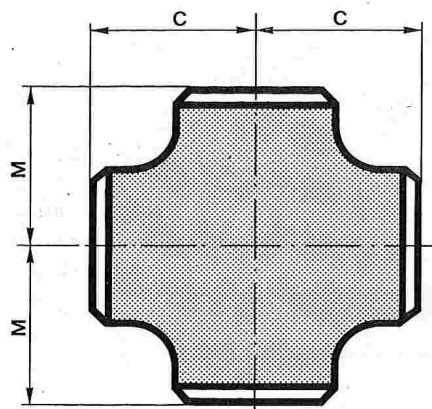
Ø	D	d	H	Ø	D	d	H	Ø	D	d	H	Ø	D	d	H
3/4x1/2	27	21	38	3"x2"	89	60	89	6"x3 1/2"	168	102	140	16"x12"	406	324	356
3/4x3/8	27	17	38	3"x1 1/2"	89	48	89	6"x3"	168	89	140	16"x10"	406	273	356
1"x3/4	33	27	51	3"x1 1/4"	89	42	89	6"x2 1/2"	168	73	140	16"x 8"	406	219	356
1"x1/2	33	21	51	3"1/2x3"	102	89	102	8"x 6"	219	168	152	18"x16"	457	406	381
1"1/4x1"	42	33	51	3"1/2x2 1/2"	102	73	102	8"x 5"	219	141	152	18"x14"	457	356	381
1"1/4x3/4	42	27	51	3"1/2x2"	102	60	102	8"x 4"	219	114	152	18"x12"	457	324	381
1"1/4x1/2	42	21	51	3"1/2x1 1/2"	102	48	102	8"x3 1/2"	219	102	152	18"x10"	457	273	381
1"1/2x1 1/4"	48	42	64	3"1/2x1 1/4"	102	42	102	10"x 8"	273	219	178	20"x18"	508	457	508
1"1/2x1"	48	33	64	4"x3 1/2"	114	102	102	10"x 6"	273	168	178	20"x16"	508	406	508
1"1/2x3/4	48	27	64	4"x3"	114	89	102	10"x 5"	273	141	178	20"x14"	508	356	508
1"1/2x1/2	48	21	64	4"x2 1/2"	114	73	102	10"x 4"	273	114	178	20"x12"	508	324	508
2"x1 1/2"	60	48	76	4"x2"	114	60	102	12"x10"	324	273	203	22"x20"	559	508	508
2"x1 1/4"	60	42	76	4"x1 1/2"	114	48	102	12"x 8"	324	219	203	22"x18"	559	457	508
2"x1"	60	33	76	5"x4"	141	114	127	12"x 6"	324	168	203	22"x16"	559	406	508
2"x3/4	60	27	76	5"x3 1/2"	141	102	127	12"x 5"	324	141	203	22"x14"	559	356	508
2"1/2x2"	73	60	89	5"x3"	141	89	127	14"x12"	356	324	330	24"x22"	610	559	508
2"1/2x1 1/2"	73	48	89	5"x2 1/2"	141	73	127	14"x10"	356	273	330	24"x20"	610	508	508
2"1/2x1 1/4"	73	42	89	5"x2"	141	60	127	14"x 8"	356	219	330	24"x18"	610	457	508
2"1/2x1"	73	33	89	6"x5"	168	141	140	14"x 6"	356	168	330	24"x16"	610	406	508
3"x2 1/2"	89	73	89	6"x4"	168	114	140	16"x14"	406	356	356				

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

**CROCI - FONDI
CROSSES - CAPS**

ANSI B16.9



Dimensioni in mm. / Dimensions are in millimeters

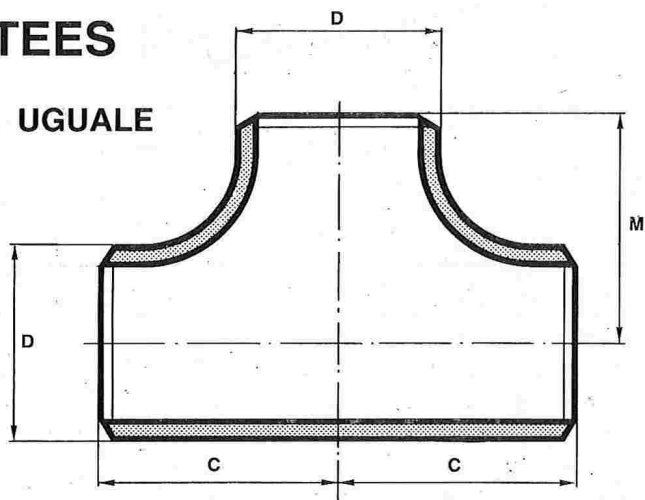
Ø	D	C	M	E STD - XS	E
1/2"	21	25	25	25	25
3/4"	27	29	29	25	25
1"	33	38	38	38	38
1" 1/4	42	48	48	38	38
1" 1/2	48	57	57	38	38
2"	60	64	64	38	44
2" 1/2	73	76	76	38	51
3"	89	86	86	51	64
3" 1/2	102	95	95	64	76
4"	114	105	105	64	76
5"	141	124	124	76	89
6"	168	143	143	89	102
8"	219	178	178	102	127
10"	273	216	216	127	152
12"	324	254	254	152	178
14"	356	279	279	165	191
16"	406	305	305	178	203
18"	457	343	343	203	229
20"	508	381	381	229	254
22"	559	419	419	254	254
24"	610	432	432	267	305

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

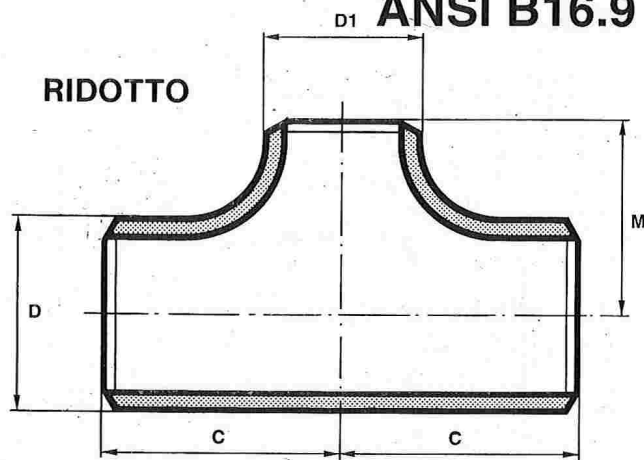
TEES

UGUALE



ANSI B16.9

RIDOTTO



Dimensioni in mm. / Dimensions are in millimeters

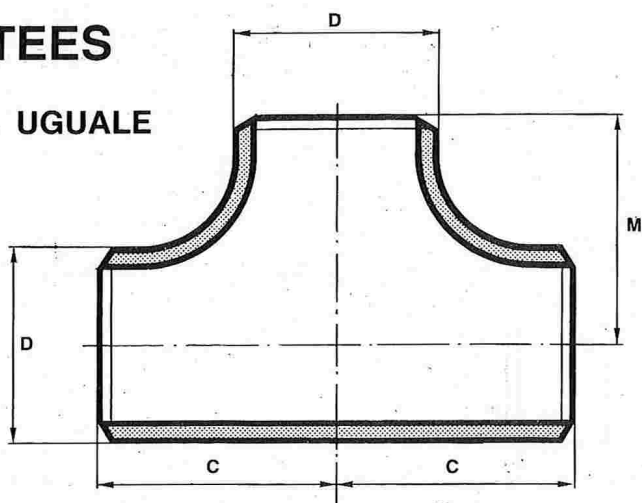
Ø	D	D1	C	M	Ø	D	D1	C	M	Ø	D	D1	C	M
1/2	21		25	25	2x2x1½	60	48	64	60	4	114		105	105
1/2x1/2x3/8	21	17	25	25	2x2x1¼	60	42	64	57	4x4x3½	114	102	105	102
1/2x1/2x1/4	21	14	25	25	2x2x1	60	33	64	51	4x4x3	114	89	105	98
3/4	27		29	29	2x2x¾	60	27	64	44	4x4x2½	114	73	105	95
3/4x3/4x1/2	27	21	29	29	2½	73		76	76	4x4x2	114	60	105	89
3/4x3/4x3/8	27	17	29	29	2½x2½x2	73	60	76	70	4x4x1½	114	48	105	86
1	33		38	38	2½x2½x1½	73	48	76	67	5	141		124	124
1x1x¾	33	27	38	38	2½x2½x1¼	73	42	76	64	5x5x4	141	114	124	117
1x1x1/2	33	21	38	38	2½x2½x1	73	33	76	57	5x5x3½	141	102	124	114
1¼	42		48	48	3	89		86	86	5x5x3	141	89	124	111
1¼x1¼x1	42	33	48	48	3x3x2½	89	73	86	83	5x5x2½	141	73	124	108
1¼x1¼x¾	42	27	48	48	3x3x2	89	60	86	76	5x5x2	141	60	124	105
1¼x1¼x1/2	42	21	48	48	3x3x1½	89	48	86	73	6	168		143	143
1½	48		57	57	3x3x1¼	89	42	86	70	6x6x5	168	141	143	137
1½x1½x1¼	48	42	57	57	3½	102		95	95	6x6x4	168	114	143	130
1½x1½x1	48	33	57	57	3½x3½x3	102	89	95	92	6x6x3½	168	102	143	127
1½x1½x¾	48	27	57	57	3½x3½x2½	102	73	95	89	6x6x3	168	89	143	124
1½x1½x1/2	48	21	57	57	3½x3½x2	102	60	95	83	6x6x2½	168	73	143	121
2	60		64	64	3½x3½x1½	102	48	95	79	8	219		178	178

— BIAGINI PIERO & C. —

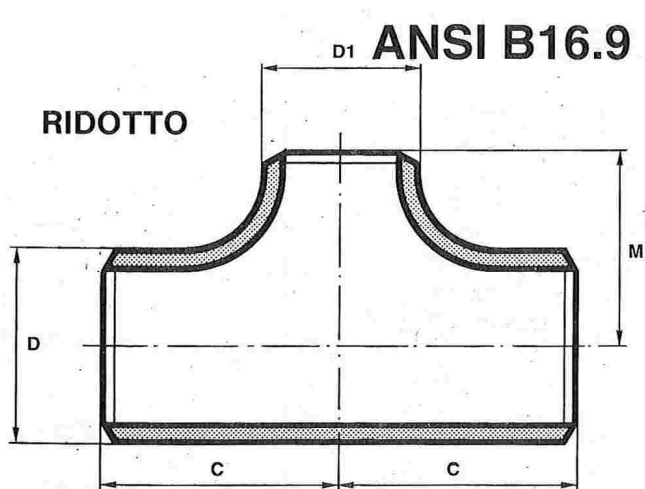
FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

TEES

UGUALE



RIDOTTO



ANSI B16.9

Dimensioni in mm. / Dimensions are in millimeters

Ø	D	D1	C	M	Ø	D	D1	C	M	Ø	D	D1	C	M
8x8x6	219	168	178	168	16	406		305	305	22	559		419	419
8x8x5	219	141	178	162	16x16x14	406	356	305	305	22x22x20	559	508	419	406
8x8x4	219	114	178	156	16x16x12	406	324	305	295	22x22x18	559	457	419	394
8x8x3½	219	102	178	152	16x16x10	406	273	305	283	22x22x16	559	406	419	381
10	273		216	216	16x16x8	406	219	305	273	22x22x14	559	356	419	381
10x10x8	273	219	216	203	16x16x6	406	168	305	264	22x22x12	559	324	419	371
10x10x6	273	168	216	194	18	457		343	343	22x22x10	559	273	419	359
10x10x5	273	141	216	191	18x18x16	457	406	343	330	24	610		432	432
10x10x4	273	114	216	184	18x18x14	457	356	343	330	24x24x22	610	559	432	432
12	324		254	254	18x18x12	457	324	343	321	24x24x20	610	508	432	432
12x12x10	324	273	254	241	18x18x10	457	273	343	308	24x24x18	610	457	432	419
12x12x8	324	219	254	229	18x18x8	457	219	343	298	24x24x16	610	406	432	406
12x12x6	324	168	254	219	20	508		381	381	24x24x14	610	356	432	406
12x12x5	324	140	254	216	20x20x18	508	457	381	368	24x24x12	610	324	432	397
14	356		279	279	20x20x16	508	406	381	356	24x24x10	610	273	432	384
14x14x12	356	324	279	270	20x20x14	508	356	381	356					
14x14x10	356	273	279	257	20x20x12	508	324	381	346					
14x14x8	356	219	279	248	20x20x10	508	273	381	333					
14x14x6	356	168	279	238	20x20x8	508	219	381	324					

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

TOLLERANZE TOLERANCES

ANSI B16.9

Dimensioni in mm. / Dimensions are in millimeters

TUTTI I RACCORDI ALL FITTINGS				CURVE TEE 45° 90° TEES- ELBOWS	RIDUZIONI REDUCERS	FONDI CAPS	CURVE A 180° 180° RETURNS		
DIAMETRO NOMINALE NOMINAL PIPE SIZE	DIAMETRO ALL'ESTERNO ALLO SMUSSO OUTSIDE DIAMETER AT BEVEL	DIAMETRO INTERNO ALL'ESTREMITÀ INSIDE DIAMETER AT END	SPESSORE WALL THICKNESS	DIMENSIONI CENTER TO END A-B-C-M	LUNGHEZZA OVERALL LENGTH H	ALTEZZA EIGHT E	INTERASSE CENTER TO CENTER O	ALTEZZA BACK TO FACE K	ALLINEAMENTO ESTREMITÀ ALIGNMENT
1/2" ÷ 2" 1/2"	± 1	± 0.8	NON INFERIORE ALL'87,5% DELLO SPESSORE NOMINALE NOT LESS THAN 87,5% OF NOMINAL THICKNESS	± 2	± 2	± 4	± 7	± 7	± 1
3" ÷ 3" 1/2"	± 1	± 1.6		± 2	± 2	± 4	± 7	± 7	± 1
4"	+2 -1	± 1.6		± 2	± 2	± 4	± 7	± 7	± 1
5" ÷ 6"	+3 -1	± 1.6		± 2	± 2	± 7	± 7	± 7	± 1
8"	± 2	± 1.6		± 2	± 2	± 7	± 7	± 7	± 1
10"	+4 -3	± 3.2		± 2	± 2	± 7	± 10	± 7	± 2
12" ÷ 18"	+4 -3	± 3.2		± 3	± 3	± 7	± 10	± 7	± 2
20" ÷ 24"	+6 -5	± 4.8		± 3	± 3	± 7	± 10	± 7	± 2

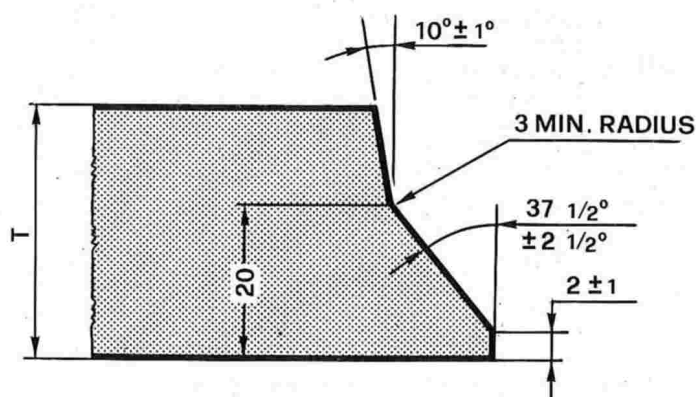
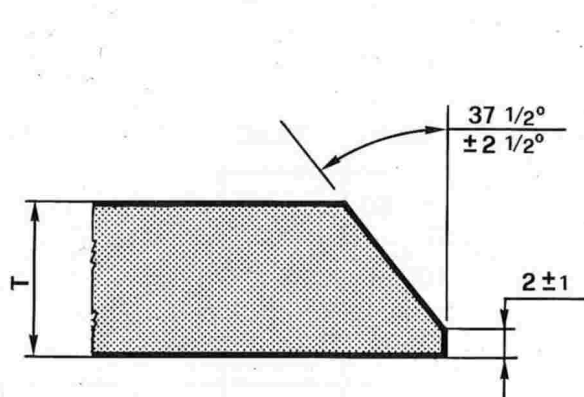
ESECUZIONE SMUSSI END PREPARATION

ESECUZIONE PER ACCOPPIAMENTO A TUBI DI
SPESSORE T DA 5 A 22 mm. INCLUSO

FOR WALL THICKNESSES T 5 mm. TO 22 mm. INCLUSIVE

ESECUZIONE PER ACCOPPIAMENTO A TUBI DI
SPESSORE T MAGGIORE DI 22 mm.

FOR WALL THICKNESSES T GREATER THAN 22 mm.



I RACCORDI CON SPESSORE T < 5 mm SONO FORNITI CON ESTREMITÀ TRONCA SE NON ALTRIMENTI
SPECIFICATO DAL CLIENTE

FITTINGS HAVING A WALL THICKNESSES T < 5 mm ARE FURNISHED WITH SQUARE ENDS UNLESS
OTHERWISE SPECIFIED BY THE CUSTOMER

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

PESI APPROSSIMATI PER RACCORDI ANSI B16.9 **APPROXIMATE WEIGHTS FOR ANSI B16.9 FITTINGS**

Pesi in Kg. / Weight in Kg.

Ø	CURVE L.R. 90° L.R. ELBOWS 90°		CURVE S.R. 90° S.R. ELBOWS 90°		FONDI CAPS		TEES UGUALI STRAIGHT TEES		RIDUZIONI REDUCERS	
	STD	XS	STD	XS	STD	XS	STD	XS	STD	XS
1/2"	0.10	0.15			0.03	0.04	0.15	0.21		
3/4"	0.10	0.15			0.06	0.08	0.20	0.27	0.07	0.010
1"	0.15	0.20	0.11	0.14	0.10	0.12	0.40	0.82	0.10	0.15
1" 1/4	0.26	0.35	0.18	0.23	0.14	0.18	0.77	0.86	0.15	0.20
1" 1/2	0.38	0.51	0.25	0.34	0.16	0.22	1.08	1.22	0.30	0.35
2"	0.68	0.94	0.45	0.62	0.23	0.32	1.48	1.86	0.45	0.54
2" 1/2	1.35	1.79	0.89	1.19	0.37	0.47	2.45	3.07	0.77	0.97
3"	2.15	2.87	1.40	1.90	0.65	0.85	3.80	4.30	1.04	1.39
3" 1/2	2.88	4.10	1.97	2.72	0.97	1.30	5	6.10	1.40	1.81
4"	4.10	5.65	2.66	3.71	1.15	1.60	5.90	7.20	1.77	2.26
5"	6.85	9.70	4.55	6.44	1.90	2.65	9.50	13	2.81	3.71
6"	10.65	16	7.02	10.50	2.92	4.30	14.90	19.20	4.03	5.84
8"	21.30	32.20	14.22	21.60	5.07	7.60	27	34.40	6.34	9.78
10"	37.60	50.80	25.23	34	9.10	12	41.30	58.40	10.69	14.45
12"	55.80	73.40	36.90	48.60	13.40	17.20	56.60	79.30	15.40	20.38
14"	71.60	94.30	47.50	63	16.10	20.50	81.50	117.70	26.82	35.83
16"	93.80	123	62.50	82.50	20.30	26.20	100	142.70	34	44.62
18"	118	159	75	97.50	26	33.50	126.80	170	40	53
20"	147	195	93	125	32	42.60	168	245	59	78
22"	196	226	120	155	42	51	220	310	65	84
24"	211	281	134	177	46	59.40	240	350	72	95

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

DIMENSIONI TUBI SALDATI E SENZA SALDATURA DIMENSIONS OF WELDED AND SEAMLESS PIPES

Dimensioni in mm. / Dimensions are in millimeters

ANSI B36.10 ACCIAIO AL CARBONIO E LEGATO - CARBON AND ALLOY STEELS															ANSI B36.19 ACCIAIO INOX STAINLESS STEELS			
DIAMETRO NOMINALE	DIAMETRO ESTERNO	SPESSORI NOMINALI / NOMINAL WALL THICKNESSES													SPESSORI NOMINALI NOMINAL WALL THICKNESSES			
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCH. 10	SCH. 20	SCH. 30	STANDARD	SCH. 40	SCH. 60	EXTRA STRONG	SCH. 80	SCH. 100	SCH. 120	SCH. 140	SCH. 160	DOUBLE EXTRA STRONG	SCH. 5 S	SCH. 10 S	SCH. 40 S	SCH. 80 S
1/2"	21.34				2.77	2.77		3.73	3.73				4.78	7.47	1.65	2.11	2.77	3.73
3/4"	26.67				2.87	2.87		3.91	3.91				5.56	7.82	1.65	2.11	2.87	3.91
1"	33.40				3.38	3.38		4.55	4.55				6.35	9.09	1.65	2.77	3.38	4.55
1" 1/4	42.16				3.56	3.56		4.85	4.85				6.35	9.70	1.65	2.77	3.56	4.85
1" 1/2	48.26				3.68	3.68		5.08	5.08				7.14	10.16	1.65	2.77	3.68	5.08
2"	60.32				3.91	3.91		5.54	5.54				8.74	11.07	1.65	2.77	3.91	5.54
2" 1/2	73.02				5.16	5.16		7.01	7.01				9.52	14.02	2.11	3.05	5.16	7.01
3"	88.90				5.49	5.49		7.62	7.62				11.13	15.24	2.11	3.05	5.49	7.62
3" 1/2	101.60				5.74	5.74		8.08	8.08				-	-	2.11	3.05	5.74	8.08
4"	114.30				6.02	6.02		8.56	8.56		11.13		13.49	17.12	2.11	3.05	6.02	8.56
5"	141.30				6.55	6.55		9.52	9.52		12.70		15.88	19.05	2.77	3.40	6.55	9.52
6"	168.27				7.11	7.11		10.97	10.97		14.27		18.26	21.95	2.77	3.40	7.11	10.97
8"	219.07		6.35	7.04	8.18	8.18	10.31	12.70	12.70	15.09	18.26	20.62	23.01	22.22	2.77	3.76	8.18	12.70
10"	273.05		6.35	7.80	9.27	9.27	12.70	12.70	15.09	18.26	21.44	25.40	28.58	25.40	3.40	4.19	9.27	12.70
12"	323.85		6.35	8.38	9.52	10.31	14.27	12.70	17.48	21.44	25.40	28.58	33.32	25.40	3.96	4.57	9.52	12.70
14"	355.60	6.35	7.92	9.52	9.52	11.13	15.09	12.70	19.05	23.83	27.79	31.75	35.71		3.96	4.77		
16"	406.40	6.35	7.92	9.52	9.52	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49		4.19	4.77		
18"	457.20	6.35	7.92	11.13	9.52	14.27	19.05	12.70	23.83	29.36	34.93	39.67	45.24		4.19	4.77		
20"	508.00	6.35	9.52	12.70	9.52	15.09	20.62	12.70	26.19	32.54	38.10	44.45	50.01		4.77	5.54		
22"	558.80	6.35	9.52	12.70	9.52	15.88	22.22	12.70	28.58	34.92	41.28	47.63	53.98		4.77	5.54		
24"	609.60	6.35	9.52	14.27	9.52	17.48	24.61	12.70	30.96	38.89	46.02	52.37	59.54		5.54	6.35		

MATERIALI COMUNEMENTE USATI MATERIALS COMMONLY USED

	B16 - 9 B16 - 28	TUBO	LAMIERA	FORGIATO
		PIPE	PLATE	FORGED
ACCIAIO AL CARBONIO CARBON STEEL	ASTM A234 WPA/B API 5LX x42 - x46 x52 - x60 - x65 - x70	ASTM A 106 Gr. A/B	ASTM A 515/Gr. 60/65/70	ASTM A 105
ACCIAIO AL CARBONIO (PER BASSE TEMPERATURE -50°C) CARBON STEEL (FOR LOW TEMPERATURE -50°C)	ASTM A 420 WPL6	ASTM A 333 Gr. 6	ASTM A 516/Gr. 60/65/70	ASTM A 350 LF2
ACCIAIO AL CARBONIO-NICKEL (PER BASSE TEMPERATURE -100°C) CARBON-NICKEL STEEL (FOR LOW TEMPERATURE -100°C)	ASTM A 420 WPL3	ASTM A 333 Gr. 3	ASTM A 203 Gr. D	ASTM A 350 LF3
ACCIAIO AL CARBONIO-MOLIBDENO CARBON MOLYBDENUM ALLOY STEEL	ASTM A 234 WP1	ASTM A 335 P1	ASTM A 204 Gr. B	ASTM A 182 F1
ACCIAIO AL CROMO-MOLIBDENO CHROMIUM-MOLYBDENUM ALLOY STEEL	ASTM A 234 WP12 ASTM A 234 WP11 ASTM A 234 WP22 ASTM A 234 WP5 ASTM A 234 WP9	ASTM A 335 P12 ASTM A 335 P11 ASTM A 335 P22 ASTM A 335 P5 ASTM A 335 P9	ASTM A 387 Gr. 12 ASTM A 387 Gr. 11 ASTM A 387 Gr. 22 ASTM A 387 Gr. 5	ASTM A 182 F12 ASTM A 182 F11 ASTM A 182 F22 ASTM A 182 F5 ASTM A 182 F9
ACCIAIO INOSSIDABILE AUSTENITICO AUSTENITIC STAINLESS STEEL	ASTM A 403 WP304 (L) ASTM A 403 WP316 (L) ASTM A 403 WP321	ASTM A 312 Tp304 (L) ASTM A 312 Tp316 (L) ASTM A 312 Tp321	ASTM A 240 Tp304 (L) ASTM A 240 Tp316 (L) ASTM A 240 Tp321	ASTM A 182 F304 (L) ASTM A 182 F316 (L) ASTM A 182 F321

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

TIPI DI ACCIAIO PER FLANGE E RACCORDI FORGIATI **TYPE OF STEELS FOR FLANGES AND FORGED FITTINGS**

TIPO TYPE	ASTM	GRADO GRADE	C %	Mn %	Si %	P	S	Cr %	Ni %	Mo %		R kgs/sq mm	Rs kgs/sq mm	ALLUNG. ELONG.	AREA RID. AREA RED.	CONDIZIONI DI LAVORO WORKING CONDITIONS	
						% Max	% %							% %			
ACCIAIO AL CARBONIO CARBON STEELS	A 181	1*	0,35 Max	0,90 Max	0,35 Max	0,05	0,05	-	-	-	-	42,2	21,1	22	35	PER PRESSIONI E TEMPERATURE NORMALI IN ASSENZA DI CORROSIONE ED OSSIDAZIONE FOR NORMAL PRESSURES AND TEMPERATURES IN ABSENCE OF CORROSION OR OXIDATION	
		2*										49,2	25,3	18	24		
	A 105	1*										42,2	21,1	25	38		
		2*										49,2	25,3	22	30		
	A 105	71/73	0,22-0,35	0,60-1,05	0,35 Max	0,04	0,05	-	-	-	-	49,2	25,3	22	30		
	A 350	LF1	0,30 Max	1,06 Max	-	0,04	0,05	-	-	-	-	42,2	21,1	25	38	PER BASSE TEMPERATURE SINO A -50°C FOR LOW TEMPERATURES UP TO -50°C	
		LF2		1,35 Max	0,15-0,30							49,2	25,3	22	30		
	NICKEL - ALLOY NICKEL - ALLOY		LF3	0,20 Max	0,90 Max	0,15-0,35	0,04	0,04	-	3,25-3,75	-	-	49,2	28,1	25	50	PER BASSE TEMPERATURE SINO A -100°C FOR LOW TEMPERATURES UP TO -100°C
			LF4	0,12 Max	0,55-1,00	0,10-0,35			0,50-0,95	0,50-0,95			Cu, Al	42,2		21,1	
	ACCIAI FERRITICI FERRITIC STEELS	A 182	F1	0,28 Max	0,60-0,90	0,15-0,35	0,04	0,04	-	-	0,44-0,65		49,2	28,1	25	35	PER ALTE TEMPERATURE E PRESSIONI E CON BASSE CONDIZIONI DI CORROSIONE OD OSSIDAZIONE FOR HIGH TEMPERATURES AND PRESSURE AND IN LOW CORROSIVE OR OXIDATIVE CONDITIONS
F5			0,15 Max	0,30-0,60	0,50 Max	0,03	0,03	4,0-6,0	0,50 Max	20					35		
F5a			0,25 Max	0,60 Max		0,04				63,3			45,7	22	50		
F6			0,12 Max	1,00 Max	1,00 Max	0,04	0,03	11,5-13,5	-	59,7	38,7		25	40			
F9			0,15 Max	0,30-0,60	0,50-1,00	0,03		8,0-10,0	0,90-1,10	59,7	38,7						
F11			0,10-0,20	0,30-0,80		0,04	0,04	1,0-1,50	0,44-0,65	49,2	28,1		20	30			
F12					0,10-0,60			0,80-1,25									
F22			0,15 Max	0,30-0,60	0,50 Max	2,00-2,50	0,87-1,13										
ACCIAI AUSTENITICI AUSTENITIC STEELS			F304	0,08 Max	2,00 Max	1,00 Max	0,04	0,03	18,0-20,0	8,00-11,0	-		52,2	21,1	45	50	PER ALTE TEMPERATURE E PRESSIONI E CON ALTE CONDIZIONI DI CORROSIONE ED OSSIDAZIONE ED ANCHE PER BASSE TEMPERATURE (-100°C) FOR HIGH PRESS. AND TEMPERAT. AND HIGH CORROS. AND OXIDAT. COND. AND ALSO FOR LOW TEMPERATURES (-100°C)
			F316						16,0-18,0	10,0-14,0	2,00-3,00						
	F347		0,03				17,0-20,0		9,0-13,0	-	Cb						
	F321						17,0 Min		9,0-12,0		Ti						
ACCIAI INOX BASSO CARBONIO LOW CARBON STAINLESS STEEL		F304L	0,035 Max	2,00 Max	1,00 Max	0,04	0,03	18,0-20,0	8,0-13,0	-		45,7	17,6	30	50	PER PIÙ ALTE CONDIZIONI DI CORROSIONE ED OSSIDAZIONE RISPETTO ALLA POSIZIONE SOPRA FOR HIGHER CORROSIVE AND OXIDATIVE CONDIT. THAN ABOVE	
		F316L						16,0-18,0	10,0-15,0	2,0-3,0							

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

DIMENSIONE DEI TUBI SALDATI E SENZA SALDATURA DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

ANSI B36.10

Dimensioni in mm./Dimensions are in millimeters

DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	IDENTIFI- CAZIONE IDENTIFI- CATION	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER	DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	IDENTIFI- CAZIONE IDENTIFI- CATION	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER
1/8	10.3	40	STD	1.73	6.9	4"	114.3		XXS	17.12	80
		80	XS	2.41	5.5			40	STD	6.55	128.2
1/4	13.7	40	STD	2.24	9.3	5"	141.3	80	XS	9.53	122.2
		80	XS	3.02	7.7			120		12.70	115.9
3/8	17.1	40	STD	2.31	12.5	6"	168.3	160		15.88	109.5
		80	XS	3.20	10.7				XXS	19.05	103.2
1/2	21.3	40	STD	2.77	15.7	8"	219.1	40	STD	7.11	154
		80	XS	3.73	13.8			80	XS	10.97	146.3
		160		4.78	11.7			120		14.27	139.7
			XXS	7.47	6.3			160		18.26	131.7
3/4	26.7	40	STD	2.87	20.9	10"	273.1		XXS	21.95	124.4
		80	XS	3.91	18.9			20		6.35	206.4
		160		5.56	15.6			30		7.04	205
			XXS	7.82	11			40	STD	8.18	202.7
1"	33.4	40	STD	3.38	26.6	12"	323.9	60		10.31	198.4
		80	XS	4.55	24.3			80	XS	12.70	193.7
		160		6.35	20.7			100		15.09	188.9
			XXS	9.09	15.2			120		18.26	182.5
1"1/4	42.2	40	STD	3.56	35	14"	355.6	140		20.62	177.8
		80	XS	4.85	32.5				XXS	22.23	174.6
		160		6.35	29.5			160		23.01	173
			XXS	9.70	22.8			20		6.35	260.4
1"1/2	48.3	40	STD	3.68	40.9	16"	406.4	30		7.80	257.5
		80	XS	5.08	38.1			40	STD	9.27	254.5
		160		7.14	34			60	XS	12.70	247.7
			XXS	10.15	28			80		15.09	242.9
2"	60.3	40	STD	3.91	52.4	18"	457.0	100		18.26	236.5
		80	XS	5.54	49.2			120		21.44	230.2
		160		8.74	42.8			140	XXS	25.40	222.3
			XXS	11.07	38.1			160		28.58	215.9
2"1/2	73	40	STD	5.16	62.6	20"	508.0	20		6.35	311.2
		80	XS	7.01	59			30		8.38	307.1
		160		9.53	53.9				STD	9.53	304.8
			XXS	14.02	44.9			40		10.31	303.2
3"	88.9	40	STD	5.49	77.9	24"	609.6		XS	12.70	298.5
		80	XS	7.62	73.6			60		14.27	295.3
		160		11.13	66.6			80		17.48	288.9
			XXS	15.24	58.4			100		21.44	281
3"1/2	101.6	40	STD	5.74	90.1	26"	660.4	120	XXS	25.40	273.1
		80	XS	8.08	85.4			140		28.58	266.7
4"	114.3	40	STD	6.02	102.2	30"	762.0	160		33.32	257.2
		80	XS	8.56	97.1			10		6.35	342.9
		120		11.13	92			20		7.92	339.7
		160		13.49	87.3			30	STD	9.53	336.5

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	IDENTIFI- CAZIONE IDENTIFI- CATION	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER	DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	IDENTIFI- CAZIONE IDENTIFI- CATION	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER
14"	355.6	40		11.13	333.3	24"	610	40		17.48	575
			XS	12.70	330.2			60		24.61	560.7
		60		15.09	325.4			80		30.96	548
		80		19.05	317.5			100		38.89	532.2
		100		23.83	307.9			120		46.02	517.9
		120		27.79	300			140		52.37	505.2
		140		31.75	292.1			160		59.54	490.9
		160		35.71	284.1	26"	660	10		7.92	644.1
16"	406.4	10		6.35	393.7				STD	9.53	640.9
		20		7.92	390.5			20	XS	12.70	634.6
		30	STD	9.53	387.3	28"	711	10		7.92	695.1
		40	XS	12.70	381				STD	9.53	691.9
		60		16.66	373			20	XS	12.70	685.6
		80		21.44	363.5			30		15.88	679.2
		100		26.19	354	30"	762	10		7.92	746.1
		120		30.96	344.4				STD	9.53	742.9
		140		36.53	333.3			20	XS	12.70	736.6
		160		40.49	325.4			30		15.88	730.2
18"	457	10		6.35	444.3	32"	813	10		7.92	797.1
		20		7.92	441.1				STD	9.53	793.9
			STD	9.53	437.9			20	XS	12.70	787.6
		30		11.13	434.7			30		15.88	781.2
			XS	12.70	431.6			40		17.48	778
		40		14.27	428.4	34"	864	10		7.92	848.1
		60		19.05	418.9				STD	9.53	844.9
		80		23.83	409.3			20	XS	12.70	838.6
		100		29.36	398.2			30		15.88	832.2
		120		34.93	387.1			40		17.48	829
		140		39.67	377.6	36"	914	10		7.92	898.1
		160		45.24	366.5				STD	9.53	894.9
20"	508	10		6.35	495.3			20	XS	12.70	888.6
		20	STD	9.53	488.9			30		15.88	882.2
		30	XS	12.70	482.6			40		19.05	875.9
		40		15.09	477.8	38"	965		STD	9.53	945.9
		60		20.62	466.7				XS	12.70	939.6
		80		26.19	455.6	40"	1016		STD	9.53	996.9
		100		32.54	442.9				XS	12.70	990.6
		120		38.10	431.8	42"	1067		STD	9.53	1047.9
		140		44.45	419.1				XS	12.70	1041.6
		160		50.01	407.9	44"	1118		STD	9.53	1098.9
22"	559	10		6.35	546.3				XS	12.70	1092.6
		20	STD	9.53	539.9	46"	1168		STD	9.53	1148.9
		30	XS	12.70	533.6				XS	12.70	1142.6
		60		22.23	514.5	48"	1219		STD	9.53	1199.9
		80		28.58	501.8				XS	12.70	1993.6
		100		34.93	489.1	52"	1321				
		120		41.28	476.4	56"	1422				
		140		47.63	463.7	60"	1524				
		160		53.98	451	64"	1626				
24"	610	10		6.35	597.3	68"	1727				
		20	STD	9.53	590.9	72"	1829				
			XS	12.70	584.6	76"	1930				
		30		14.27	581.4	80"	2032				

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS

**DIMENSIONE DEI TUBI SALDATI E SENZA SALDATURA
IN ACCIAIO INOSSIDABILE**
**DIMENSIONS OF WELDED AND SEAMLESS STAINLESS
STEEL PIPE**

ANSI B36.19

Dimensioni in mm./Dimensions are in millimeters

DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER	DIAMETRO NOMINALE INCH NOMI- NAL SIZE	DIAMETRO ESTERNO OUTSIDE DIAMETER	SCHEDULE N°	SPESSORE WALL THICKNESS	DIAMETRO INTERNO INSIDE DIAMETER
1/8	10.28	5/S			4"	114.30	40/S	6.01	102.28
		10/S	1.24	7.80			80/S	8.55	97.20
		40/S	1.72	6.84	5"	141.30	5/S	2.76	135.78
		80/S	2.41	5.46			10/S	3.40	134.50
1/4	13.71	5/S					40/S	6.55	128.20
		10/S	1.65	10.41			80/S	9.52	122.26
		40/S	2.23	9.25	6"	168.27	5/S	2.76	162.75
		80/S	3.02	7.67			10/S	3.40	161.47
3/8	17.14	5/S					40/S	7.11	154.05
		10/S	1.65	13.84			80/S	10.97	146.33
		40/S	2.31	12.52	8"	219.07	5/S	2.76	213.55
		80/S	3.20	10.74			10/S	3.75	211.57
1/2	21.33	5/S	1.65	18.03			40/S	8.17	202.73
		10/S	2.10	17.13			80/S	12.70	193.67
		40/S	2.76	15.81	10"	273.05	5/S	3.40	266.25
		80/S	3.73	13.87			10/S	4.19	264.67
3/4	26.67	5/S	1.65	23.37			40/S	9.27	254.51
		10/S	2.10	22.47			80/S	12.70	247.65
		40/S	2.87	20.93	12"	323.85	5/S	3.96	315.93
		80/S	3.91	18.85			10/S	4.57	314.71
1"	33.40	5/S	1.65	30.10			40/S	9.52	304.81
		10/S	2.76	27.88			80/S	12.70	298.45
		40/S	3.37	26.66	14"	355.60	5/S	3.96	347.68
		80/S	4.54	24.32			10/S	4.77	346.06
1"1/4	42.16	5/S	1.65	38.86			40/S		
		10/S	2.76	36.64			80/S		
		40/S	3.55	35.06	16"	406.40	5/S	4.19	398.02
		80/S	4.85	32.46			10/S	4.77	396.86
1"1/2	48.26	5/S	1.65	44.96			40/S		
		10/S	2.76	42.74			80/S		
		40/S	3.68	40.90	18"	457.20	5/S	4.19	448.82
		80/S	5.08	38.10			10/S	4.77	447.66
2"	60.32	5/S	1.65	57.02			40/S		
		10/S	2.76	54.80			80/S		
		40/S	3.91	52.50	20"	508.00	5/S	4.77	498.46
		80/S	5.53	49.26			10/S	5.53	496.94
2"1/2	73.02	5/S	2.10	68.82			40/S		
		10/S	3.04	66.94			80/S		
		40/S	5.15	62.72	22"	558.80	5/S	4.77	549.26
		80/S	7.01	59.00			10/S	5.53	547.74
3"	88.90	5/S	2.10	84.70			40/S		
		10/S	3.04	82.82			80/S		
		40/S	5.48	77.94	24"	609.60	5/S	5.53	598.54
		80/S	7.62	73.66			10/S	6.35	596.90
3"1/2	101.60	5/S	2.10	97.40			40/S		
		10/S	3.04	95.52			80/S		
		40/S	5.74	90.12	30"	762.00	5/S	6.35	749.30
		80/S	8.07	85.46			10/S	7.92	746.16
4"	114.30	5/S	2.10	110.10			40/S		
		10/S	3.04	108.22			80/S		

— BIAGINI PIERO & C. —

FLANGE CURVE RACCORDI - FLANGES AND FITTINGS