



High Purity BioPharm Fittings

Specifications

- All fittings are manufactured to meet the latest edition of the ASME BPE International Standard, Bioprocessing Equipment.
- 316L stainless steel material and dimensions meet all orbital welding specifications with controlled sulphur.

Markets

- pharmaceutical
- cosmetics
- bioprocessing
- food processing
- semiconductor
- beverage

Packaging

Product markings per ASME BPE 2012 DT-10.1

- job number
- 316L
- Dixon Sanitary part number
- heat number(s)
- surface finish code
- ASME BPE

Per the specification, the size of the fitting may limit the space available for markings. When this occurs, the markings starting at the bottom of the list are not applied. The Dixon Sanitary part number will describe the part configuration and size.

MTR (material test report) certifications are included inside a resealable bag with each fitting. The MTRs are traceable through the job number found on each fitting. All fittings are capped to prevent damage and contamination. Material test reports are also available from the Dixon website dixonvalve.com; just enter the job number located on each fitting.

For easy identification each finish will have a different color cap.

- PL finish - SF1...blue caps
- PM finish - SF4...white caps

Example MTR

Dixon Sanitary High Purity BioPharm Fittings

316L (S31603) Stainless Steel Material Test Report

Job Number	BC004		
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Bradford™ Part Number	Description	Size	Surface finish
T9MP-150PM	Clamp Cross per Table DT-4 1 2-4	1½"	SF4 (15Ra)

Chemical analysis (%) per ASME BPE 2012 Table MM-2.1-1 and Section MM-5.1.1

Item	Heat number	C	Mn	P	S	Si	Cr	Ni	Mo	N
		0.030	2.00	0.045	0.017	1.00	16.00	10.00	2.00	
M	950809	0.019	1.54	0.031	0.010	0.41	16.80	10.10	2.05	0.05
F	SA0479-B70	0.021	1.49	0.032	0.014	0.30	16.20	10.30	2.16	

Mechanical Test Results

Item	Yield Strength (0.2%), MPa	Tensile Strength, MPa	Elongation, %	Hardness, HRB	Specification
	170 minimum	485 minimum	35 minimum	90 maximum	
M	361	600	55.0	87	ASME SA479
F	270	565	61.0	77	ASME SA479

Product of USA

We certify that the above is a true copy of the test results issued by the material supplier. This MTR conforms to EN10204-3.1. All fittings supplied by Dixon Sanitary conform to the requirements of the European Union Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

Bruce Anderson
Technical Director

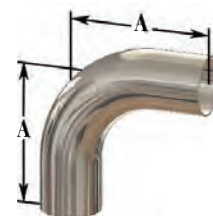
Dixon Sanitary
N25 W23040 Paul Rd.
Pewaukee, WI 53072
USA
800-789-1718
bradfordfittings.com

The Right Connector™

High Purity BioPharm Fittings

90° Weld Elbows - T2S

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	3.00"	T2S-050PL	\$53.55	T2S-050PM	\$85.50
3/4"	3.00"	T2S-075PL	53.55	T2S-075PM	85.50
1"	3.00"	T2S-100PL	51.35	T2S-100PM	83.60
1 1/2"	3.75"	T2S-150PL	48.05	T2S-150PM	81.95
2"	4.75"	T2S-200PL	64.90	T2S-200PM	109.10
2 1/2"	5.50"	T2S-250PL	117.25	T2S-250PM	154.45
3"	6.25"	T2S-300PL	163.10	T2S-300PM	205.70
4"	8.00"	T2S-400PL	281.10	T2S-400PM	340.10



BPE Table DT-4.1.1-1

90° Clamp x Weld Elbows - T2CM

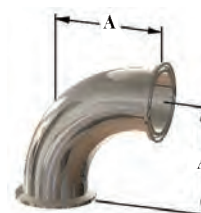
Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	3.00"	1.625"	T2CM-050PL	\$108.35	T2CM-050PM	\$123.85
3/4"	3.00"	1.625"	T2CM-075PL	108.35	T2CM-075PM	123.85
1"	3.00"	2.000"	T2CM-100PL	99.05	T2CM-100PM	116.20
1 1/2"	3.75"	2.750"	T2CM-150PL	99.05	T2CM-150PM	117.65
2"	4.75"	3.500"	T2CM-200PL	125.35	T2CM-200PM	148.65
2 1/2"	5.50"	4.250"	T2CM-250PL	192.35	T2CM-250PM	223.85
3"	6.25"	5.000"	T2CM-300PL	250.90	T2CM-300PM	282.50
4"	8.00"	6.625"	T2CM-400PL	390.65	T2CM-400PM	429.70



BPE Table DT-4.1.1-2

90° Clamp x Clamp Elbows - T2CMP

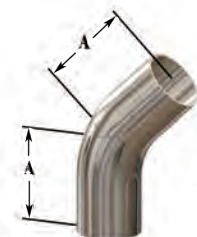
Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	1.625"	T2CMP-050PL	\$103.70	T2CMP-050PM	\$120.70
3/4"	1.625"	T2CMP-075PL	103.70	T2CMP-075PM	120.70
1"	2.000"	T2CMP-100PL	91.40	T2CMP-100PM	106.90
1 1/2"	2.750"	T2CMP-150PL	91.40	T2CMP-150PM	120.90
2"	3.500"	T2CMP-200PL	122.35	T2CMP-200PM	158.35
2 1/2"	4.250"	T2CMP-250PL	201.40	T2CMP-250PM	228.45
3"	5.000"	T2CMP-300PL	228.45	T2CMP-300PM	259.95
4"	6.625"	T2CMP-400PL	468.75	T2CMP-400PM	510.80



BPE Table DT-4.11.1-3

45° Weld Elbows - T2KS

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	2.250"	T2KS-050PL	\$56.85	T2KS-050PM	\$88.35
3/4"	2.250"	T2KS-075PL	56.85	T2KS-075PM	88.35
1"	2.250"	T2KS-100PL	60.15	T2KS-100PM	77.70
1 1/2"	2.500"	T2KS-150PL	65.30	T2KS-150PM	82.55
2"	3.000"	T2KS-200PL	77.25	T2KS-200PM	99.75
2 1/2"	3.375"	T2KS-250PL	88.35	T2KS-250PM	122.60
3"	3.625"	T2KS-300PL	114.80	T2KS-300PM	152.35
4"	4.500"	T2KS-400PL	199.50	T2KS-400PM	246.50



BPE Table DT-4.1.1-4

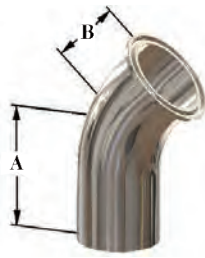
PL Finish – SF1
 OD = 32R_a Mechanically Polished
 ID = 20R_a Mechanically Polished

PM Finish – SF4
 OD = 32R_a Mechanically Polished
 ID = 15R_a Mechanically Polished and Electropolished



High Purity BioPharm Fittings

45° Clamp x Weld Elbows - T2KM



BPE Table DT-4.1.1-5

Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	2.250"	1.000"	T2KM-050PL	\$102.20	T2KM-050PM	\$119.20
3/4"	2.250"	1.000"	T2KM-075PL	102.20	T2KM-075PM	119.20
1"	2.250"	1.125"	T2KM-100PL	99.05	T2KM-100PM	116.20
1 1/2"	2.500"	1.438"	T2KM-150PL	99.05	T2KM-150PM	117.65
2"	3.000"	1.750"	T2KM-200PL	113.05	T2KM-200PM	148.10
2 1/2"	3.375"	2.063"	T2KM-250PL	143.95	T2KM-250PM	190.15
3"	3.625"	2.380"	T2KM-300PL	192.35	T2KM-300PM	246.25
4"	4.500"	3.125"	T2KM-400PL	285.95	T2KM-400PM	328.90

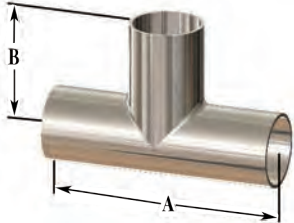
45° Clamp x Clamp Elbows - T2KMP



BPE Table DT-4.1.1-6

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	1.000"	T2KMP-050PL	\$134.65	T2KMP-050PM	\$140.80
3/4"	1.000"	T2KMP-075PL	123.85	T2KMP-075PM	140.80
1"	1.125"	T2KMP-100PL	120.70	T2KMP-100PM	127.00
1 1/2"	1.438"	T2KMP-150PL	109.90	T2KMP-150PM	128.45
2"	1.750"	T2KMP-200PL	128.45	T2KMP-200PM	150.10
2 1/2"	2.063"	T2KMP-250PL	198.30	T2KMP-250PM	228.45
3"	2.380"	T2KMP-300PL	250.90	T2KMP-300PM	282.50
4"	3.125"	T2KMP-400PL	563.35	T2KMP-400PM	608.40

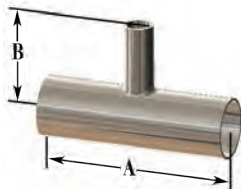
Weld x Weld x Weld Tees - T7WWW



BPE Table DT-4.1.2-1

Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	3.750"	1.875"	T7WWW-050PL	\$106.65	T7WWW-050PM	\$119.85
3/4"	4.000"	2.000"	T7WWW-075PL	106.65	T7WWW-075PM	119.85
1"	4.250"	2.125"	T7WWW-100PL	96.35	T7WWW-100PM	109.50
1 1/2"	4.750"	2.375"	T7WWW-150PL	96.35	T7WWW-150PM	122.25
2"	5.750"	2.875"	T7WWW-200PL	111.10	T7WWW-200PM	148.75
2 1/2"	6.250"	3.125"	T7WWW-250PL	156.55	T7WWW-250PM	203.10
3"	6.750"	3.375"	T7WWW-300PL	199.85	T7WWW-300PM	246.25
4"	8.250"	4.125"	T7WWW-400PL	290.00	T7WWW-400PM	353.70

Weld x Weld x Weld Reducing Tees - T7RWWW



BPE Table DT-4.1.2-6

Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
3/4" x 1/2"	4.000"	2.000"	T7RWWW-075050PL	\$116.60	T7RWWW-075050PM	\$162.30
1" x 1/2"	4.250"	2.125"	T7RWWW-100050PL	120.30	T7RWWW-100050PM	168.35
1" x 3/4"	4.250"	2.125"	T7RWWW-100075PL	120.30	T7RWWW-100075PM	168.35
1 1/2" x 1/2"	4.750"	2.375"	T7RWWW-150050PL	157.75	T7RWWW-150050PM	178.80
1 1/2" x 3/4"	4.750"	2.375"	T7RWWW-150075PL	120.30	T7RWWW-150075PM	169.80
1 1/2" x 1"	4.750"	2.375"	T7RWWW-150100PL	157.75	T7RWWW-150100PM	178.80
2" x 1/2"	5.750"	2.625"	T7RWWW-200050PL	204.35	T7RWWW-200050PM	225.35
2" x 3/4"	5.750"	2.625"	T7RWWW-200075PL	204.35	T7RWWW-200075PM	225.35
2" x 1"	5.750"	2.625"	T7RWWW-200100PL	204.35	T7RWWW-200100PM	225.35
2" x 1 1/2"	5.750"	2.625"	T7RWWW-200150PL	204.35	T7RWWW-200150PM	225.35

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

PM Finish – SF4

OD = 32R_a Mechanically Polished

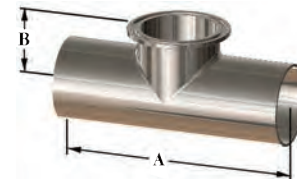
ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Fittings



Weld x Weld x Clamp Short Outlet Tees - T7WWMS

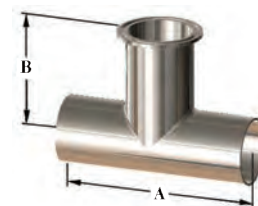
Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	3.750"	1.000"	T7WWMS-050PL	\$141.35	T7WWMS-050PM	\$161.60
3/4"	4.000"	1.125"	T7WWMS-075PL	130.00	T7WWMS-075PM	148.65
1"	4.250"	1.125"	T7WWMS-100PL	116.20	T7WWMS-100PM	131.65
1 1/2"	4.750"	1.375"	T7WWMS-150PL	116.20	T7WWMS-150PM	136.15
2"	5.750"	1.625"	T7WWMS-200PL	139.35	T7WWMS-200PM	178.50
2 1/2"	6.250"	1.825"	T7WWMS-250PL	181.85	T7WWMS-250PM	236.40
3"	6.750"	2.125"	T7WWMS-300PL	236.80	T7WWMS-300PM	281.00
4"	8.250"	2.750"	T7WWMS-400PL	522.80	T7WWMS-400PM	564.85



BPE Table DT-4.1.2-2

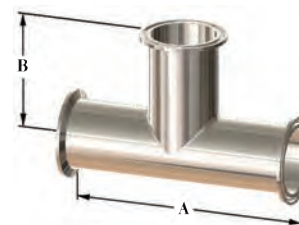
Weld x Weld x Clamp Tees - T7WWM

Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	3.750"	2.250"	T7WWM-050PL	\$130.00	T7WWM-050PM	\$148.65
3/4"	4.000"	2.375"	T7WWM-075PL	130.00	T7WWM-075PM	148.65
1"	4.250"	2.625"	T7WWM-100PL	116.20	T7WWM-100PM	131.65
1 1/2"	4.750"	2.875"	T7WWM-150PL	116.20	T7WWM-150PM	149.80
2"	5.750"	3.375"	T7WWM-200PL	139.35	T7WWM-200PM	178.50
2 1/2"	6.250"	3.625"	T7WWM-250PL	181.85	T7WWM-250PM	236.40
3"	6.750"	3.875"	T7WWM-300PL	247.90	T7WWM-300PM	309.10
4"	8.250"	4.750"	T7WWM-400PL	522.80	T7WWM-400PM	564.85



Clamp x Clamp x Clamp Tees - T7MP

Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2"	4.500"	2.250"	T7MP-050PL	\$159.50	T7MP-050PM	\$176.70
3/4"	4.750"	2.375"	T7MP-075PL	159.50	T7MP-075PM	176.70
1"	5.250"	2.625"	T7MP-100PL	143.50	T7MP-100PM	159.50
1 1/2"	5.750"	2.875"	T7MP-150PL	143.50	T7MP-150PM	180.20
2"	6.750"	3.375"	T7MP-200PL	162.35	T7MP-200PM	215.45
2 1/2"	7.250"	3.625"	T7MP-250PL	214.05	T7MP-250PM	273.40
3"	7.750"	3.875"	T7MP-300PL	460.15	T7MP-300PM	495.50
4"	9.500"	4.750"	T7MP-400PL	883.25	T7MP-400PM	936.35



BPE Table DT-4.1.2-4

PL Finish – SF1
 OD = 32R_a Mechanically Polished
 ID = 20R_a Mechanically Polished

PM Finish – SF4
 OD = 32R_a Mechanically Polished
 ID = 15R_a Mechanically Polished and Electropolished



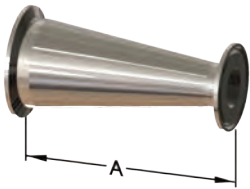
High Purity BioPharm Fittings Weld x Weld Concentric Reducers - T31W



BPE Table DT-4.1.3-1(a)

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
¾" x ½"	4.00"	T31W-075050PL	\$102.65	T31W-075050PM	\$126.15
1" x ½"	4.50"	T31W-100050PL	145.65	T31W-100050PM	163.80
1" x ¾"	4.00"	T31W-100075PL	117.95	T31W-100075PM	136.45
1½" x ½"	5.50"	T31W-150050PL	264.05	T31W-150050PM	301.40
1½" x ¾"	5.00"	T31W-150075PL	283.95	T31W-150075PM	304.95
1½" x 1"	5.00"	T31W-150100PL	126.95	T31W-150100PM	187.90
2" x ½"	7.75"	T31W-200050PL	337.55	T31W-200050PM	440.40
2" x ¾"	7.25"	T31W-200075PL	313.95	T31W-200075PM	414.65
2" x 1"	7.25"	T31W-200100PL	149.00	T31W-200100PM	181.25
2" x 1½"	5.25"	T31W-200150PL	127.70	T31W-200150PM	165.85

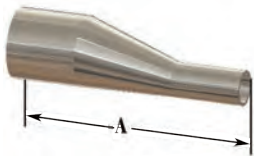
Clamp x Clamp Concentric Reducers - T3114MP



BPE Table DT-4.1.3-3(a)

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
¾" x ½"	2.000"	T3114MP075050PL	\$215.55	T3114MP075050PM	\$236.15
1" x ½"	2.500"	T3114MP100050PL	303.90	T3114MP100050PM	328.40
1" x ¾"	2.000"	T3114MP100075PL	232.90	T3114MP100075PM	252.40
1½" x ½"	3.500"	T3114MP150050PL	362.90	T3114MP150050PM	392.10
1½" x ¾"	3.000"	T3114MP150075PL	366.80	T3114MP150075PM	455.80
1½" x 1"	3.000"	T3114MP150100PL	261.40	T3114MP150100PM	285.30
2" x ½"	5.500"	T3114MP200050PL	497.40	T3114MP200050PM	667.60
2" x ¾"	5.000"	T3114MP200075PL	494.00	T3114MP200075PM	530.80
2" x 1"	5.000"	T3114MP200100PL	321.80	T3114MP200100PM	342.95
2" x 1½"	3.000"	T3114MP200150PL	221.55	T3114MP200150PM	244.55

Weld x Weld Eccentric Reducers - T32W



BPE Table DT-4.1.3-1(a)

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
¾" x ½"	4.00"	T32W-075050PL	\$187.85	T32W-075050PM	\$205.85
1" x ½"	4.50"	T32W-100050PL	178.50	T32W-100050PM	195.40
1" x ¾"	4.00"	T32W-100075PL	190.85	T32W-100075PM	205.85
1½" x ½"	5.50"	T32W-150050PL	421.50	T32W-150050PM	447.60
1½" x ¾"	5.00"	T32W-150075PL	387.60	T32W-150075PM	411.60
1½" x 1"	5.00"	T32W-150100PL	174.35	T32W-150100PM	194.75
2" x ½"	7.75"	T32W-200050PL	409.10	T32W-200050PM	509.90
2" x ¾"	7.25"	T32W-200075PL	406.65	T32W-200075PM	507.45
2" x 1"	7.25"	T32W-200100PL	185.60	T32W-200100PM	250.00
2" x 1½"	5.25"	T32W-200150PL	165.30	T32W-200150PM	216.35

Clamp x Clamp Eccentric Reducers - T3214MP



BPE Table DT-4.1.3-3(a)

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
¾" x ½"	2.000"	T3214MP075050PL	\$271.30	T3214MP075050PM	\$290.90
1" x ½"	2.500"	T3214MP100050PL	315.35	T3214MP100050PM	338.20
1" x ¾"	2.000"	T3214MP100075PL	317.65	T3214MP100075PM	338.70
1½" x ½"	3.500"	T3214MP150050PL	410.40	T3214MP150050PM	435.20
1½" x ¾"	3.000"	T3214MP150075PL	441.30	T3214MP150075PM	468.00
1½" x 1"	3.000"	T3214MP150100PL	320.45	T3214MP150100PM	349.95
2" x ½"	5.500"	T3214MP200050PL	654.40	T3214MP200050PM	797.85
2" x ¾"	5.000"	T3214MP200075PL	639.25	T3214MP200075PM	782.25
2" x 1"	5.000"	T3214MP200100PL	411.75	T3214MP200100PM	438.50
2" x 1½"	3.000"	T3214MP200150PL	281.10	T3214MP200150PM	326.00

PL Finish – SF1
OD = 32R_a Mechanically Polished
ID = 20R_a Mechanically Polished

PM Finish – SF4
OD = 32R_a Mechanically Polished
ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Fittings



Solid End Caps - T16AMP

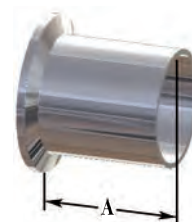
Size	Dimensions		PL finish - SF1		PM finish - SF4	
	A	B	Part #	Price/E	Part #	Price/E
1/2" - 3/4"	0.19"	1.00"	T16AMP-050075PL	\$14.50	T16AMP-050075PM	\$26.75
1" - 1 1/2"	0.25"	1.99"	T16AMP-100150PL	13.15	T16AMP-100150PM	25.25
2"	0.25"	2.52"	T16AMP-200PL	17.50	T16AMP-200PM	38.80
2 1/2"	0.25"	3.05"	T16AMP-250PL	25.25	T16AMP-250PM	46.35
3"	0.25"	3.58"	T16AMP-300PL	39.25	T16AMP-300PM	61.75
4"	0.31"	4.69"	T16AMP-400PL	102.45	T16AMP-400PM	127.60



BPE Table DT-4.1.5-2

Auto Weld Ferrules - TL14AM7

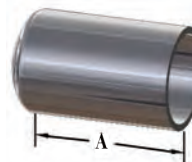
Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	1.75"	TL14AM7-050PL	\$26.45	TL14AM7-050PM	\$43.65
3/4"	1.75"	TL14AM7-075PL	26.45	TL14AM7-075PM	43.65
1"	1.75"	TL14AM7-100PL	26.55	TL14AM7-100PM	48.30
1 1/2"	1.75"	TL14AM7-150PL	28.05	TL14AM7-150PM	60.15
2"	2.25"	TL14AM7-200PL	36.45	TL14AM7-200PM	77.55
2 1/2"	2.25"	TL14AM7-250PL	56.00	TL14AM7-250PM	108.40
3"	2.25"	TL14AM7-300PL	76.35	TL14AM7-300PM	132.10
4"	2.25"	TL14AM7-400PL	135.35	TL14AM7-400PM	187.10



BPE Table DT-4.1.4-1

Weld Caps - T16W

Size	Dimension A	PL finish - SF1		PM finish - SF4	
		Part #	Price/E	Part #	Price/E
1/2"	1.50"	T16W-050PL	\$57.35	T16W-050PM	\$71.25
3/4"	1.50"	T16W-075PL	83.00	T16W-075PM	97.55
1"	1.50"	T16W-100PL	52.65	T16W-100PM	66.60
1 1/2"	1.50"	T16W-150PL	60.75	T16W-150PM	96.05
2"	1.50"	T16W-200PL	88.25	T16W-200PM	105.50



BPE Table DT-4.1.5-1

PL Finish – SF1
 OD = 32R_a Mechanically Polished
 ID = 20R_a Mechanically Polished

PM Finish – SF4
 OD = 32R_a Mechanically Polished
 ID = 15R_a Mechanically Polished and Electropolished