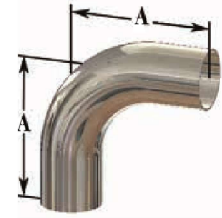


High Purity BioPharm Fittings



90° Weld Elbows - T2S

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
1/2"	3.00"	T2S-050PL	T2S-050PM
3/4"	3.00"	T2S-075PL	T2S-075PM
1"	3.00"	T2S-100PL	T2S-100PM
1 1/2"	3.75"	T2S-150PL	T2S-150PM
2"	4.75"	T2S-200PL	T2S-200PM
2 1/2"	5.50"	T2S-250PL	T2S-250PM
3"	6.25"	T2S-300PL	T2S-300PM
4"	8.00"	T2S-400PL	T2S-400PM

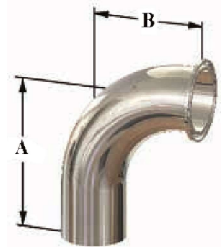


BPE Table DT-4.1.1-1

Sanitary
Fittings

90° Clamp x Weld Elbows - T2CM

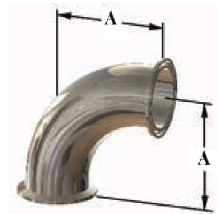
Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
1/2"	3.00"	1.625"	T2CM-050PL	T2CM-050PM
3/4"	3.00"	1.625"	T2CM-075PL	T2CM-075PM
1"	3.00"	2.000"	T2CM-100PL	T2CM-100PM
1 1/2"	3.75"	2.750"	T2CM-150PL	T2CM-150PM
2"	4.75"	3.500"	T2CM-200PL	T2CM-200PM
2 1/2"	5.50"	4.250"	T2CM-250PL	T2CM-250PM
3"	6.25"	5.000"	T2CM-300PL	T2CM-300PM
4"	8.00"	6.625"	T2CM-400PL	T2CM-400PM



BPE Table DT-4.1.1-2

90° Clamp x Clamp Elbows - T2CMP

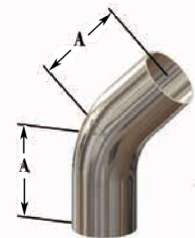
Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
1/2"	1.625"	T2CMP-050PL	T2CMP-050PM
3/4"	1.625"	T2CMP-075PL	T2CMP-075PM
1"	2.000"	T2CMP-100PL	T2CMP-100PM
1 1/2"	2.750"	T2CMP-150PL	T2CMP-150PM
2"	3.500"	T2CMP-200PL	T2CMP-200PM
2 1/2"	4.250"	T2CMP-250PL	T2CMP-250PM
3"	5.000"	T2CMP-300PL	T2CMP-300PM
4"	6.625"	T2CMP-400PL	T2CMP-400PM



BPE Table DT-4.11.1-3

45° Weld Elbows - T2KS

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
1/2"	2.250"	T2KS-050PL	T2KS-050PM
3/4"	2.250"	T2KS-075PL	T2KS-075PM
1"	2.250"	T2KS-100PL	T2KS-100PM
1 1/2"	2.500"	T2KS-150PL	T2KS-150PM
2"	3.000"	T2KS-200PL	T2KS-200PM
2 1/2"	3.375"	T2KS-250PL	T2KS-250PM
3"	3.625"	T2KS-300PL	T2KS-300PM
4"	4.500"	T2KS-400PL	T2KS-400PM



BPE Table DT-4.1.1-4

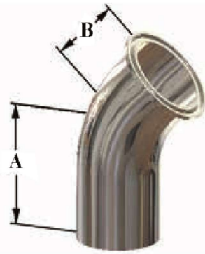
PL Finish – SF1
OD = 32R_a Mechanically Polished
ID = 20R_a Mechanically Polished

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

Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
1/2"	2.250"	1.000"	T2KM-050PL	T2KM-050PM
3/4"	2.250"	1.000"	T2KM-075PL	T2KM-075PM
1"	2.250"	1.125"	T2KM-100PL	T2KM-100PM
1 1/2"	2.500"	1.438"	T2KM-150PL	T2KM-150PM
2"	3.000"	1.750"	T2KM-200PL	T2KM-200PM
2 1/2"	3.375"	2.063"	T2KM-250PL	T2KM-250PM
3"	3.625"	2.380"	T2KM-300PL	T2KM-300PM
4"	4.500"	3.125"	T2KM-400PL	T2KM-400PM



BPE Table DT-4.1.1-5

Sanitary Fittings

45° Clamp x Clamp Elbows - T2KMP

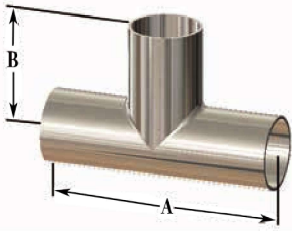
Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
3/4"	1.000"	T2KMP-075PL	T2KMP-075PM
1"	1.125"	T2KMP-100PL	T2KMP-100PM
1 1/2"	1.438"	T2KMP-150PL	T2KMP-150PM
2"	1.750"	T2KMP-200PL	T2KMP-200PM
2 1/2"	2.063"	T2KMP-250PL	T2KMP-250PM
3"	2.380"	T2KMP-300PL	T2KMP-300PM
4"	3.125"	T2KMP-400PL	T2KMP-400PM



BPE Table DT-4.1.1-6

Weld x Weld x Weld Tees - T7WWW

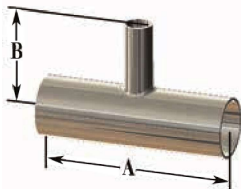
Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
1/2"	3.750"	1.875"	T7WWW-050PL	T7WWW-050PM
3/4"	4.000"	2.000"	T7WWW-075PL	T7WWW-075PM
1"	4.250"	2.125"	T7WWW-100PL	T7WWW-100PM
1 1/2"	4.750"	2.375"	T7WWW-150PL	T7WWW-150PM
2"	5.750"	2.875"	T7WWW-200PL	T7WWW-200PM
2 1/2"	6.250"	3.125"	T7WWW-250PL	T7WWW-250PM
3"	6.750"	3.375"	T7WWW-300PL	T7WWW-300PM
4"	8.250"	4.125"	T7WWW-400PL	T7WWW-400PM



BPE Table DT-4.1.2-1

Weld x Weld x Weld Reducing Tees - T7RWWW

Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
3/4" x 1/2"	4.000"	2.000"	T7RWWW-075050PL	T7RWWW-075050PM
1" x 1/2"	4.250"	2.125"	T7RWWW-100050PL	T7RWWW-100050PM
1" x 3/4"	4.250"	2.125"	T7RWWW-100075PL	T7RWWW-100075PM
1 1/2" x 1/2"	4.750"	2.375"	T7RWWW-150050PL	T7RWWW-150050PM
1 1/2" x 3/4"	4.750"	2.375"	T7RWWW-150075PL	T7RWWW-150075PM
1 1/2" x 1"	4.750"	2.375"	T7RWWW-150100PL	T7RWWW-150100PM
2" x 1/2"	5.750"	2.625"	T7RWWW-200050PL	T7RWWW-200050PM
2" x 3/4"	5.750"	2.625"	T7RWWW-200075PL	T7RWWW-200075PM
2" x 1"	5.750"	2.625"	T7RWWW-200100PL	T7RWWW-200100PM
2" x 1 1/2"	5.750"	2.625"	T7RWWW-200150PL	T7RWWW-200150PM



BPE Table DT-4.1.2-6

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 Part #	PM finish - SF4 Part #
	A	B		
½"	3.750"	1.000"	T7WWMS-050PL	T7WWMS-050PM
¾"	4.000"	1.125"	T7WWMS-075PL	T7WWMS-075PM
1"	4.250"	1.125"	T7WWMS-100PL	T7WWMS-100PM
1½"	4.750"	1.375"	T7WWMS-150PL	T7WWMS-150PM
2"	5.750"	1.625"	T7WWMS-200PL	T7WWMS-200PM
2½"	6.250"	1.825"	T7WWMS-250PL	T7WWMS-250PM
3"	6.750"	2.125"	T7WWMS-300PL	T7WWMS-300PM
4"	8.250"	2.750"	T7WWMS-400PL	T7WWMS-400PM

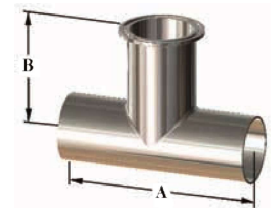


BPE Table DT-4.1.2-2

Sanitary
Fittings

Weld x Weld x Clamp Tees - T7WWM

Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
½"	3.750"	2.250"	T7WWM-050PL	T7WWM-050PM
¾"	4.000"	2.375"	T7WWM-075PL	T7WWM-075PM
1"	4.250"	2.625"	T7WWM-100PL	T7WWM-100PM
1½"	4.750"	2.875"	T7WWM-150PL	T7WWM-150PM
2"	5.750"	3.375"	T7WWM-200PL	T7WWM-200PM
2½"	6.250"	3.625"	T7WWM-250PL	T7WWM-250PM
3"	6.750"	3.875"	T7WWM-300PL	T7WWM-300PM
4"	8.250"	4.750"	T7WWM-400PL	T7WWM-400PM



Clamp x Clamp x Clamp Tees - T7MP

Size	Dimensions		PL finish - SF1 Part #	PM finish - SF4 Part #
	A	B		
½"	4.500"	2.250"	T7MP-050PL	T7MP-050PM
¾"	4.750"	2.375"	T7MP-075PL	T7MP-075PM
1"	5.250"	2.625"	T7MP-100PL	T7MP-100PM
1½"	5.750"	2.875"	T7MP-150PL	T7MP-150PM
2"	6.750"	3.375"	T7MP-200PL	T7MP-200PM
2½"	7.250"	3.625"	T7MP-250PL	T7MP-250PM
3"	7.750"	3.875"	T7MP-300PL	T7MP-300PM
4"	9.500"	4.750"	T7MP-400PL	T7MP-400PM



BPE Table DT-4.1.2-4

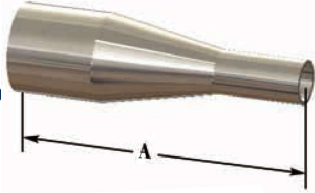
PL Finish – SF1
OD = 32R_a Mechanically Polished
ID = 20R_a Mechanically Polished

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

Sanitary Fittings



BPE Table DT-4.1.3-1(a)

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
3/4" x 1/2"	4.00"	2211CBB075050F1	2211CBB075050F4
1" x 1/2"	4.50"	2211CBB100050F1	2211CBB100050F4
1" x 3/4"	4.00"	2211CBB100075F1	2211CBB100075F4
1 1/2" x 3/4"	5.00"	2211CBB150075F1	2211CBB150075F4
1 1/2" x 1"	5.00"	2211CBB150100F1	2211CBB150100F4
2" x 1"	7.25"	2211CBB200100F1	2211CBB200100F4
2" x 1 1/2"	5.25"	2211CBB200150F1	2211CBB200150F4

Clamp x Clamp Concentric Reducers - T3114MP



BPE Table DT-4.1.3-3(a)

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
3/4" x 1/2"	2.000"	2221CBB075050F1	2221CBB075050F4
1" x 1/2"	2.500"	2221CBB100050F1	2221CBB100050F4
1" x 3/4"	2.000"	2221CBB100075F1	2221CBB100075F4
1 1/2" x 3/4"	3.000"	2221CBB150075F1	2221CBB150075F4
1 1/2" x 1"	3.000"	2221CBB150100F1	2221CBB150100F4
2" x 1"	5.000"	2221CBB200100F1	2221CBB200100F4
2" x 1 1/2"	3.000"	2221CBB200150F1	2221CBB200150F4

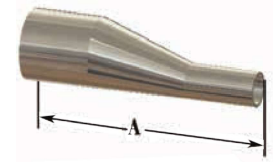
PL Finish – SF1
OD = 32R_a Mechanically Polished
ID = 20R_a Mechanically Polished

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

High Purity BioPharm Fittings

Weld x Weld Eccentric Reducers - T32W

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
3/4" x 1/2"	4.00"	2211EBB075050F1	2211EBB075050F4
1" x 1/2"	4.50"	2211EBB100050F1	2211EBB100050F4
1" x 3/4"	4.00"	2211EBB100075F1	2211EBB100075F4
1 1/2" x 3/4"	5.00"	2211EBB150075F1	2211EBB150075F4
1 1/2" x 1"	5.00"	2211EBB150100F1	2211EBB150100F4
2" x 1"	7.25"	2211EBB200100F1	2211EBB200100F4
2" x 1 1/2"	5.25"	2211EBB200150F1	2211EBB200150F4



BPE Table DT-4.1.3-1(a)

Sanitary
Fittings

Clamp x Clamp Eccentric Reducers - T3214MP

Size	Dimension A	PL finish - SF1 Part #	PM finish - SF4 Part #
3/4" x 1/2"	2.000"	2221EBB075050F1	2221EBB075050F4
1" x 1/2"	2.500"	2221EBB100050F1	2221EBB100050F4
1" x 3/4"	2.000"	2221EBB100075F1	2221EBB100075F4
1 1/2" x 3/4"	3.000"	2221EBB150075F1	2221EBB150075F4
1 1/2" x 1"	3.000"	2221EBB150100F1	2221EBB150100F4
2" x 1"	5.000"	2221EBB200100F1	2221EBB200100F4
2" x 1 1/2"	3.000"	2221EBB200150F1	2221EBB200150F4



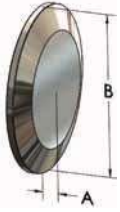
BPE Table DT-4.1.3-3(a)

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



BPE Table DT-4.1.5-2

Size	Dimensions		PL finish - SF1	PM finish - SF4
	A	B	Part #	Part #
1/2" - 3/4"	0.19"	0.98"	T16AMP-050075PL	T16AMP-050075PM
1" - 1 1/2"	0.25"	1.98"	T16AMP-100150PL	T16AMP-100150PM
2"	0.25"	2.52"	T16AMP-200PL	T16AMP-200PM
2 1/2"	0.25"	3.05"	T16AMP-250PL	T16AMP-250PM
3"	0.25"	3.58"	T16AMP-300PL	T16AMP-300PM
4"	0.31"	4.68"	T16AMP-400PL	T16AMP-400PM

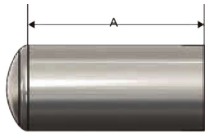
Auto Weld Ferrules - TL14AM7



BPE Table DT-4.1.4-1

Size	Dimension	PL finish - SF1	PM finish - SF4
	A	Part #	Part #
1/2"	1.75"	TL14AM7-050PL	TL14AM7-050PM
3/4"	1.75"	TL14AM7-075PL	TL14AM7-075PM
1"	1.75"	TL14AM7-100PL	TL14AM7-100PM
1 1/2"	1.75"	TL14AM7-150PL	TL14AM7-150PM
2"	2.25"	TL14AM7-200PL	TL14AM7-200PM
2 1/2"	2.25"	TL14AM7-250PL	TL14AM7-250PM
3"	2.25"	TL14AM7-300PL	TL14AM7-300PM
4"	2.25"	TL14AM7-400PL	TL14AM7-400PM

Weld Caps - T16W



BPE Table DT-4.1.5-1

Size	Dimension	PL finish - SF1	PM finish - SF4
	A	Part #	Part #
1/2"	1.50"	T16W-050PL	T16W-050PM
3/4"	1.50"	T16W-075PL	T16W-075PM
1"	1.50"	T16W-100PL	T16W-100PM
1 1/2"	1.50"	T16W-150PL	T16W-150PM
2"	1.50"	T16W-200PL	T16W-200PM

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