

Materials	Temp. Range		
Nitrile (NBR)	-40°C	to	120°C
Viton™/Fluorocarbon (FKM)	-26°C	to	204°C
Polytetrafluoroethylene (PTFE)	-260°C	to	260°C
KasPex™ PEEK	-70°C	to	260°C
Hytrell® (TPC-ET)	-54°C	to	149°C
Urethane (PU)	-54°C	to	105°C
Nylon/Polyamide (PA)	-54°C	to	121°C



Solid Flat
(27595)



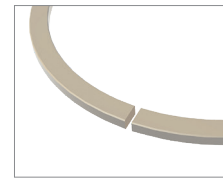
Scarf Cut
(28774)



Spiral Cut
(28782)



Solid Contoured

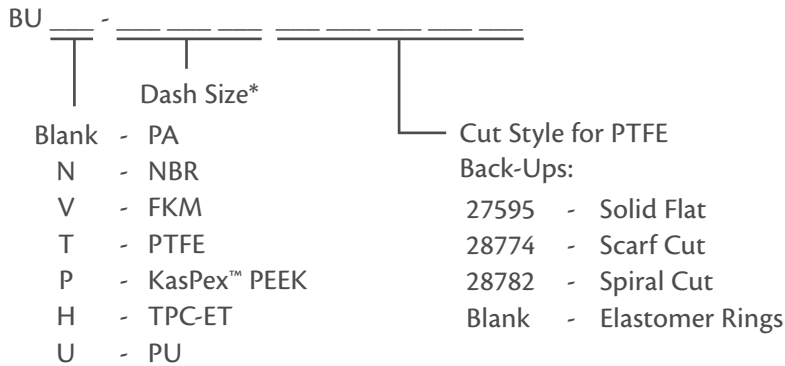


Butt Cut

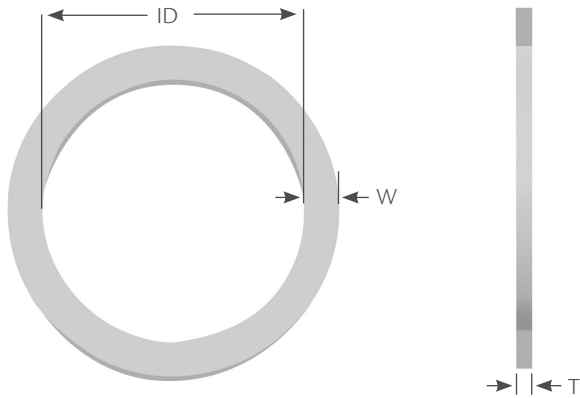
Product Description

Back-up rings are plastic or rubber rings used to prevent the O-ring from entering the clearance gap. When high pressures are exerted on the O-ring, its soft rubber material can be forced into the clearance gap causing the O-ring to extrude (see our O-ring Design Guide for examples of O-ring failure). The hard back-up ring material will keep the O-ring material from flowing into the gap, which will prevent premature failure. MIL spec numbers 27595, 28774, and 28782 are for reference purposes only. Hard plastic materials (PA, KasPex™ PEEK) require custom dimensions and thus do not follow the sizing charts on the following pages. Please reach out to Hi-Tech Seals technical support in these cases.

Part Numbers:



Solid PTFE (MS 27595)



Back-Up Rings

Part Number	ID	T ± 0.002	W ± 0.002
BUT 001 27595	0.041	0.040	0.030
BUT 002 27595	0.054	0.045	0.040
BUT 003 27595	0.068		0.047
BUT 004 27595	0.082		
BUT 005 27595	0.113	± 0.003	0.050
BUT 006 27595	0.127		
BUT 007 27595	0.158		
BUT 008 27595	0.189		
BUT 009 27595	0.221		
BUT 010 27595	0.252		
BUT 011 27595	0.314		
BUT 012 27595	0.377		
BUT 013 27595	0.442		
BUT 014 27595	0.505		
BUT 015 27595	0.567		
BUT 016 27595	0.630		
BUT 017 27595	0.692		
BUT 018 27595	0.755		
BUT 019 27595	0.817		
BUT 020 27595	0.883		
BUT 021 27595	0.945		
BUT 022 27595	1.008		
BUT 023 27595	1.070		
BUT 024 27595	1.133		
BUT 025 27595	1.195		
BUT 026 27595	1.258		
BUT 027 27595	1.320		
BUT 028 27595	1.383		
BUT 029 27595	1.508		
BUT 030 27595	1.633		
BUT 031 27595	1.758		
BUT 032 27595	1.883		
BUT 033 27595	2.088		
BUT 034 27595	2.133		
BUT 035 27595	2.258		
BUT 036 27595	2.383		

Part Number	ID	T ± 0.002	W ± 0.002
BUT 037 27595	2.508	± 0.003	0.050
BUT 038 27595	2.633		
BUT 039 27595	2.758		
BUT 040 27595	2.883		
BUT 041 27595	3.008		
BUT 042 27595	3.258		
BUT 043 27595	3.508		
BUT 044 27595	3.758		
BUT 045 27595	4.008		
BUT 046 27595	4.258		
BUT 047 27595	4.508		
BUT 048 27595	4.758		
BUT 049 27595	5.008		
BUT 050 27595	5.258		
BUT 102 27595	0.063	± 0.003	0.088
BUT 103 27595	0.095		
BUT 104 27595	0.126		
BUT 105 27595	0.157		
BUT 106 27595	0.188		
BUT 107 27595	0.220		
BUT 108 27595	0.251		
BUT 109 27595	0.313		
BUT 110 27595	0.376		
BUT 111 27595	0.439		
BUT 112 27595	0.501		
BUT 113 27595	0.564		
BUT 114 27595	0.626		
BUT 115 27595	0.689		
BUT 116 27595	0.751		
BUT 117 27595	0.817		
BUT 118 27595	0.879		
BUT 119 27595	0.942		
BUT 120 27595	1.004		
BUT 121 27595	1.067		
BUT 122 27595	1.129		

Back-Up Rings

Imperial Seals

Solid PTFE (MS 27595)

Back-Up Rings

Part Number	ID	T ± 0.002	W ± 0.002
BUT 123 27595	1.192		
BUT 124 27595	1.254		
BUT 125 27595	1.317		
BUT 126 27595	1.379		
BUT 127 27595	1.442		
BUT 128 27595	1.504		
BUT 129 27595	1.567		
BUT 130 27595	1.631		
BUT 131 27595	1.693		
BUT 132 27595	1.756		
BUT 133 27595	1.818		
BUT 134 27595	1.881		
BUT 135 27595	1.944		
BUT 136 27595	2.006		
BUT 137 27595	2.069		
BUT 138 27595	2.131		
BUT 139 27595	2.194		
BUT 140 27595	2.256		
BUT 141 27595	2.319		
BUT 142 27595	2.381		
BUT 143 27595	2.444		
BUT 144 27595	2.506		
BUT 145 27595	2.569		
BUT 146 27595	2.631		
BUT 147 27595	2.694	± 0.003	0.050
BUT 148 27595	2.756		0.088
BUT 149 27595	2.819		
BUT 150 27595	2.881		
BUT 151 27595	3.006		
BUT 152 27595	3.256		
BUT 153 27595	3.506		
BUT 154 27595	3.756		
BUT 155 27595	4.006		
BUT 156 27595	4.256		
BUT 157 27595	4.506		
BUT 158 27595	4.756		
BUT 159 27595	5.006		
BUT 160 27595	5.256		
BUT 161 27595	5.506		
BUT 162 27595	5.756		
BUT 163 27595	6.006		
BUT 164 27595	6.256		
BUT 165 27595	6.506		
BUT 166 27595	6.756		
BUT 167 27595	7.006		
BUT 168 27595	7.256		
BUT 169 27595	7.506		
BUT 170 27595	7.756		
BUT 171 27595	8.006		
BUT 172 27595	8.256	± 0.005	
BUT 173 27595	8.506		

Part Number	ID	T ± 0.002	W ± 0.002
BUT 174 27595	8.756		
BUT 175 27595	9.006		
BUT 176 27595	9.256	± 0.005	0.050
BUT 177 27595	9.506		0.088
BUT 178 27595	9.756		
BUT 201 27595	0.193		
BUT 202 27595	0.255		
BUT 203 27595	0.318		
BUT 204 27595	0.380		
BUT 205 27595	0.443		
BUT 206 27595	0.505		
BUT 207 27595	0.568		
BUT 208 27595	0.630		
BUT 209 27595	0.693		
BUT 210 27595	0.755		
BUT 211 27595	0.817		
BUT 212 27595	0.880		
BUT 213 27595	0.942		
BUT 214 27595	1.005		
BUT 215 27595	1.067		
BUT 216 27595	1.130		
BUT 217 27595	1.192		
BUT 218 27595	1.255		
BUT 219 27595	1.317		
BUT 220 27595	1.380		
BUT 221 27595	1.442		
BUT 222 27595	1.505		
BUT 223 27595	1.631	± 0.003	0.050
BUT 224 27595	1.756		0.119
BUT 225 27595	1.882		
BUT 226 27595	2.007		
BUT 227 27595	2.132		
BUT 228 27595	2.257		
BUT 229 27595	2.382		
BUT 230 27595	2.507		
BUT 231 27595	2.632		
BUT 232 27595	2.757		
BUT 233 27595	2.882		
BUT 234 27595	3.007		
BUT 235 27595	3.132		
BUT 236 27595	3.257		
BUT 237 27595	3.382		
BUT 238 27595	3.507		
BUT 239 27595	3.632		
BUT 240 27595	3.757		
BUT 241 27595	3.882		
BUT 242 27595	4.007		
BUT 243 27595	4.132		
BUT 244 27595	4.257		
BUT 245 27595	4.382		

Solid PTFE (MS 27595)

Part Number	ID	T ± 0.002	W ± 0.002
BUT 246 27595	4.507	0.050	0.119
BUT 247 27595	4.632		
BUT 248 27595	4.757		
BUT 249 27595	4.882		
BUT 250 27595	5.007		
BUT 251 27595	5.132		
BUT 252 27595	5.257		
BUT 253 27595	5.382		
BUT 254 27595	5.507		
BUT 255 27595	5.632		
BUT 256 27595	5.757		
BUT 257 27595	5.882		
BUT 258 27595	6.007		
BUT 259 27595	6.257		
BUT 260 27595	6.507		
BUT 261 27595	6.757		
BUT 262 27595	7.007		
BUT 263 27595	7.257		
BUT 264 27595	7.507		
BUT 265 27595	7.757		
BUT 266 27595	8.007		
BUT 267 27595	8.257		
BUT 268 27595	8.507		
BUT 269 27595	8.757		
BUT 270 27595	9.007		
BUT 271 27595	9.257		
BUT 272 27595	9.507		
BUT 273 27595	9.757		
BUT 274 27595	10.007		
BUT 275 27595	10.507		
BUT 276 27595	11.007		
BUT 277 27595	11.507		
BUT 278 27595	12.007		
BUT 279 27595	13.007		
BUT 280 27595	14.007		
BUT 281 27595	15.007		
BUT 282 27595	16.007		
BUT 283 27595	17.007		
BUT 284 27595	18.007		
BUT 309 27595	0.437	0.073	0.185
BUT 310 27595	0.499		
BUT 311 27595	0.562		
BUT 312 27595	0.624		
BUT 313 27595	0.687		
BUT 314 27595	0.749		
BUT 315 27595	0.812		
BUT 316 27595	0.874		
BUT 317 27595	0.937		
BUT 318 27595	0.999		
BUT 319 27595	1.062		

Part Number	ID	T ± 0.002	W ± 0.002
BUT 320 27595	1.124	0.073	0.185
BUT 321 27595	1.187		
BUT 322 27595	1.249		
BUT 323 27595	1.312		
BUT 324 27595	1.374		
BUT 325 27595	1.499		
BUT 326 27595	1.624		
BUT 327 27595	1.750		
BUT 328 27595	1.875		
BUT 329 27595	2.000		
BUT 330 27595	2.125		
BUT 331 27595	2.250		
BUT 332 27595	2.375		
BUT 333 27595	2.500		
BUT 334 27595	2.625		
BUT 335 27595	2.750		
BUT 336 27595	2.875		
BUT 337 27595	3.000		
BUT 338 27595	3.125		
BUT 339 27595	3.250		
BUT 340 27595	3.375		
BUT 341 27595	3.500		
BUT 342 27595	3.625		
BUT 343 27595	3.750		
BUT 344 27595	3.875		
BUT 345 27595	4.000		
BUT 346 27595	4.125		
BUT 347 27595	4.250		
BUT 348 27595	4.375		
BUT 349 27595	4.500		
BUT 350 27595	4.625		
BUT 351 27595	4.750		
BUT 352 27595	4.875		
BUT 353 27595	5.000		
BUT 354 27595	5.125		
BUT 355 27595	5.250		
BUT 356 27595	5.375		
BUT 357 27595	5.500		
BUT 358 27595	5.625		
BUT 359 27595	5.750		
BUT 360 27595	5.875		
BUT 361 27595	6.000		
BUT 362 27595	6.250		
BUT 363 27595	6.500		
BUT 364 27595	6.750		
BUT 365 27595	7.000		
BUT 366 27595	7.250		
BUT 367 27595	7.500		
BUT 368 27595	7.750		
BUT 369 27595	8.000		
BUT 370 27595	8.251		

Back-Up Rings

Imperial Seals

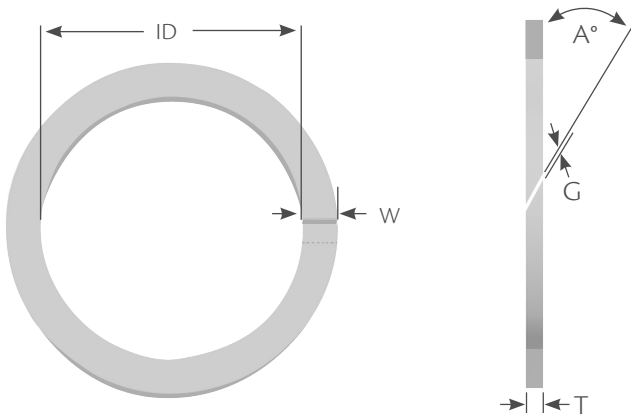
Solid PTFE (MS 27595)

Back-Up Rings

Part Number	ID	T ± 0.002	W ± 0.002		
BUT 371 27595	8.501	± 0.005	0.073		
BUT 372 27595	8.751				
BUT 373 27595	9.001				
BUT 374 27595	9.251				
BUT 375 27595	9.501				
BUT 376 27595	9.751				
BUT 377 27595	10.001				
BUT 378 27595	10.501				
BUT 379 27595	11.001				
BUT 380 27595	11.501				
BUT 381 27595	12.001				
BUT 382 27595	13.001				
BUT 383 27595	14.001				
BUT 384 27595	15.001				
BUT 385 27595	16.001				
BUT 386 27595	17.001				
BUT 387 27595	18.001				
BUT 388 27595	19.001				
BUT 389 27595	20.001				
BUT 390 27595	21.001				
BUT 391 27595	22.001				
BUT 392 27595	23.001				
BUT 393 27595	24.001				
BUT 394 27595	25.001				
BUT 395 27595	26.001				
BUT 400 27595	1.379			± 0.003	0.108
BUT 401 27595	1.504				
BUT 402 27595	1.629				
BUT 403 27595	1.754				
BUT 404 27595	1.879				
BUT 405 27595	2.004				
BUT 406 27595	2.129				
BUT 407 27595	2.254				
BUT 408 27595	2.379				
BUT 409 27595	2.504				
BUT 410 27595	2.629				
BUT 411 27595	2.754				
BUT 412 27595	2.879				
BUT 413 27595	3.004				
BUT 414 27595	3.129				
BUT 415 27595	3.254				
BUT 416 27595	3.379				
BUT 417 27595	3.504				
BUT 418 27595	3.629				
BUT 419 27595	3.754				
BUT 420 27595	3.879				
BUT 421 27595	4.004				
BUT 422 27595	4.129				
BUT 423 27595	4.254				
BUT 424 27595	4.379				

Part Number	ID	T ± 0.002	W ± 0.002		
BUT 425 27595	4.504	± 0.003	0.185		
BUT 426 27595	4.629				
BUT 427 27595	4.754				
BUT 428 27595	4.879				
BUT 429 27595	5.004				
BUT 430 27595	5.129				
BUT 431 27595	5.254				
BUT 432 27595	5.379				
BUT 433 27595	5.504				
BUT 434 27595	5.629				
BUT 435 27595	5.754				
BUT 436 27595	5.879				
BUT 437 27595	6.004				
BUT 438 27595	6.254				
BUT 439 27595	6.504				
BUT 440 27595	6.754				
BUT 441 27595	7.004				
BUT 442 27595	7.254				
BUT 443 27595	7.504				
BUT 444 27595	7.754				
BUT 445 27595	8.004				
BUT 446 27595	8.505			± 0.005	0.236
BUT 447 27595	9.005				
BUT 448 27595	9.505				
BUT 449 27595	10.005				
BUT 450 27595	10.505				
BUT 451 27595	11.005				
BUT 452 27595	11.505				
BUT 453 27595	12.005				
BUT 454 27595	12.505				
BUT 455 27595	13.005				
BUT 456 27595	13.505				
BUT 457 27595	14.005				
BUT 458 27595	14.505				
BUT 459 27595	15.005				
BUT 460 27595	15.505				
BUT 461 27595	16.005				
BUT 462 27595	16.505				
BUT 463 27595	17.005				
BUT 464 27595	17.505				
BUT 465 27595	18.005				
BUT 466 27595	18.505				
BUT 467 27595	19.005				
BUT 468 27595	19.505				
BUT 469 27595	20.005				
BUT 470 27595	21.005				
BUT 471 27595	22.005				
BUT 472 27595	23.005				
BUT 473 27595	24.005				
BUT 474 27595	25.005				
BUT 475 27595	26.005				

Scarf PTFE (MS 28774)



Back-Up Rings

Part Number	ID	T	W ± 0.002	G	A°
BUT 001 28774	0.072	± 0.003	0.030	0.005 to 0.000	39 +0 -4
BUT 002 28774	0.085		0.038		
BUT 003 28774	0.097		0.045		
BUT 004 28774	0.111				
BUT 005 28774	0.126				
BUT 006 28774	0.142				33 +0 -3
BUT 007 28774	0.173				30 +0 -3
BUT 008 28774	0.204				26 +0 -3
BUT 009 28774	0.236				
BUT 010 28774	0.267				
BUT 011 28774	0.329				
BUT 012 28774	0.392				
BUT 013 28774	0.457				
BUT 014 28774	0.520				
BUT 015 28774	0.582				
BUT 016 28774	0.645				
BUT 017 28774	0.707				
BUT 018 28774	0.770				
BUT 019 28774	0.832	0.052 to 0.045	0.053		22 +0 -3
BUT 020 28774	0.900				
BUT 021 28774	0.962				
BUT 022 28774	1.025				
BUT 023 28774	1.087				
BUT 024 28774	1.150				
BUT 025 28774	1.212				
BUT 026 28774	1.275				
BUT 027 28774	1.337				
BUT 028 28774	1.400				
BUT 029 28774	1.525				
BUT 030 28774	1.650				
BUT 031 28774	1.775				
BUT 032 28774	1.900				
BUT 033 28774	2.025				
BUT 034 28774	2.150				
BUT 035 28774	2.275				

Part Number	ID	T	W ± 0.002	G	A°
BUT 036 28774	2.400	± 0.003	0.053	0.005 to 0.000	
BUT 037 28774	2.525				
BUT 038 28774	2.650				
BUT 039 28774	2.775				
BUT 040 28774	2.900				
BUT 041 28774	3.025				
BUT 042 28774	3.275				
BUT 043 28774	3.525				
BUT 044 28774	3.775				
BUT 045 28774	4.025				
BUT 046 28774	4.275				
BUT 047 28774	4.525				
BUT 048 28774	4.775				
BUT 049 28774	5.025				
BUT 050 28774	5.275				
BUT 102 28774	0.080				
BUT 103 28774	0.111				
BUT 104 28774	0.142				
BUT 105 28774	0.173				
BUT 106 28774	0.205				
BUT 107 28774	0.236	0.052 to 0.045	0.086	0.006 to 0.000	22 +0 -3
BUT 108 28774	0.267				
BUT 109 28774	0.330				
BUT 110 28774	0.392				
BUT 111 28774	0.454				
BUT 112 28774	0.517				
BUT 113 28774	0.579				
BUT 114 28774	0.642				
BUT 115 28774	0.704				
BUT 116 28774	0.767				
BUT 117 28774	0.834				
BUT 118 28774	0.897				
BUT 119 28774	0.959				
BUT 120 28774	1.022				
BUT 121 28774	1.084				

Back-Up Rings

Imperial Seals

Scarf PTFE (MS 28774)

Back-Up Rings

Part Number	ID	T	W ± 0.002	G	A°	
BUT 122 28774	1.147					
BUT 123 28774	1.209					
BUT 124 28774	1.272					
BUT 125 28774	1.334					
BUT 126 28774	1.399					
BUT 127 28774	1.461					
BUT 128 28774	1.524					
BUT 129 28774	1.586					
BUT 130 28774	1.649					
BUT 131 28774	1.711					
BUT 132 28774	1.774					
BUT 133 28774	1.836					
BUT 134 28774	1.899					
BUT 135 28774	1.961					
BUT 136 28774	2.024					
BUT 137 28774	2.086					
BUT 138 28774	2.149					
BUT 139 28774	2.211					
BUT 140 28774	2.260					
BUT 141 28774	2.322					
BUT 142 28774	2.385					
BUT 143 28774	2.447					
BUT 144 28774	2.510					
BUT 145 28774	2.572					
BUT 146 28774	2.635					
BUT 147 28774	2.697	± 0.003	0.052 to 0.045	0.086	0.006 to 0.000	22 +0 -3
BUT 148 28774	2.760					
BUT 149 28774	2.822					
BUT 150 28774	2.947					
BUT 151 28774	3.197					
BUT 152 28774	3.447					
BUT 153 28774	3.697					
BUT 154 28774	3.947					
BUT 155 28774	4.197					
BUT 156 28774	4.447					
BUT 157 28774	4.697					
BUT 158 28774	4.947					
BUT 159 28774	5.197					
BUT 160 28774	5.447					
BUT 161 28774	5.697					
BUT 162 28774	5.947					
BUT 163 28774	6.197					
BUT 164 28774	6.447					
BUT 165 28774	6.697					
BUT 166 28774	6.947					
BUT 167 28774	7.197					
BUT 168 28774	7.447					
BUT 169 28774	7.697					
BUT 170 28774	7.947					
BUT 171 28774	8.197					

Part Number	ID	T	W ± 0.002	G	A°	
BUT 172 28774	8.447					
BUT 173 28774	8.697					
BUT 174 28774	8.947					
BUT 175 28774	9.197	± 0.003	0.052 to 0.045	0.086	0.006 to 0.000	22 +0 -3
BUT 176 28774	9.447					
BUT 177 28774	9.697					
BUT 178 28774	9.947					
BUT 201 28774	0.196					
BUT 202 28774	0.258					
BUT 203 28774	0.321					
BUT 204 28774	0.383					
BUT 205 28774	0.446					
BUT 206 28774	0.508					
BUT 207 28774	0.571					
BUT 208 28774	0.633					
BUT 209 28774	0.696					
BUT 210 28774	0.758					
BUT 211 28774	0.821					0.006 to 0.000
BUT 212 28774	0.883					
BUT 213 28774	0.946					
BUT 214 28774	1.008					
BUT 215 28774	1.071					
BUT 216 28774	1.133					
BUT 217 28774	1.196					
BUT 218 28774	1.258					
BUT 219 28774	1.321					
BUT 220 28774	1.383					
BUT 221 28774	1.446	± 0.003	0.052 to 0.045	0.119		22 +0 -3
BUT 222 28774	1.508					
BUT 223 28774	1.633					
BUT 224 28774	1.758					
BUT 225 28774	1.883					
BUT 226 28774	2.008					
BUT 227 28774	2.133					
BUT 228 28774	2.258					
BUT 229 28774	2.383					
BUT 230 28774	2.508					
BUT 231 28774	2.633					
BUT 232 28774	2.758					0.007 to 0.000
BUT 233 28774	2.883					
BUT 234 28774	3.008					
BUT 235 28774	3.133					
BUT 236 28774	3.258					
BUT 237 28774	3.383					
BUT 238 28774	3.508					
BUT 239 28774	3.633					
BUT 240 28774	3.758					
BUT 241 28774	3.883					
BUT 242 28774	4.008					

Scarf PTFE (MS 28774)

Part Number	ID	T ± 0.005	W ± 0.002	G	A°	
BUT 243 28774	4.133	± 0.003	0.052 to 0.045	0.119	0.007 to 0.000	22 +0 -3
BUT 244 28774	4.258					
BUT 245 28774	4.383					
BUT 246 28774	4.508					
BUT 247 28774	4.633					
BUT 248 28774	4.758					
BUT 249 28774	4.883					
BUT 250 28774	5.008					
BUT 251 28774	5.133					
BUT 252 28774	5.258					
BUT 253 28774	5.383					
BUT 254 28774	5.508					
BUT 255 28774	5.633					
BUT 256 28774	5.758					
BUT 257 28774	5.883					
BUT 258 28774	6.008					
BUT 259 28774	6.258					
BUT 260 28774	6.508					
BUT 261 28774	6.758					
BUT 262 28774	7.008					
BUT 263 28774	7.258					
BUT 264 28774	7.508					
BUT 265 28774	7.758					
BUT 266 28774	8.008					
BUT 267 28774	8.258					
BUT 268 28774	8.508					
BUT 269 28774	8.758					
BUT 270 28774	9.008					
BUT 271 28774	9.258					
BUT 272 28774	9.508					
BUT 273 28774	9.758					
BUT 274 28774	10.008					
BUT 275 28774	10.508					
BUT 276 28774	11.008					
BUT 277 28774	11.508					
BUT 278 28774	12.008					
BUT 279 28774	13.008					
BUT 280 28774	14.008					
BUT 281 28774	15.008					
BUT 282 28774	16.008					
BUT 283 28774	17.008					
BUT 284 28774	18.008					
BUT 309 28774	0.453	± 0.003	0.070	0.183	0.007 to 0.000	22 +0 -3
BUT 310 28774	0.515					
BUT 311 28774	0.578					
BUT 312 28774	0.640					
BUT 313 28774	0.703					
BUT 314 28774	0.765					
BUT 315 28774	0.828					

Part Number	ID	T ± 0.005	W ± 0.002	G	A°	
BUT 316 28774	0.890	± 0.003	0.070	0.183	0.007 to 0.000	22 +0 -3
BUT 317 28774	0.953					
BUT 318 28774	1.015					
BUT 319 28774	1.078					
BUT 320 28774	1.140					
BUT 321 28774	1.203					
BUT 322 28774	1.265					
BUT 323 28774	1.328					
BUT 324 28774	1.390					
BUT 325 28774	1.515					
BUT 326 28774	1.640					
BUT 327 28774	1.765					
BUT 328 28774	1.890					
BUT 329 28774	2.015					
BUT 330 28774	2.140					
BUT 331 28774	2.270					
BUT 332 28774	2.395					
BUT 333 28774	2.520					
BUT 334 28774	2.645					
BUT 335 28774	2.770					
BUT 336 28774	2.895					
BUT 337 28774	3.020					
BUT 338 28774	3.145					
BUT 339 28774	3.275					
BUT 340 28774	3.400					
BUT 341 28774	3.525					
BUT 342 28774	3.650					
BUT 343 28774	3.775					
BUT 344 28774	3.900					
BUT 345 28774	4.030					
BUT 346 28774	4.155					
BUT 347 28774	4.280					
BUT 348 28774	4.405					
BUT 349 28774	4.530					
BUT 350 28774	4.655					
BUT 351 28774	4.780					
BUT 352 28774	4.905					
BUT 353 28774	5.030					
BUT 354 28774	5.155					
BUT 355 28774	5.280					
BUT 356 28774	5.405					
BUT 357 28774	5.530					
BUT 358 28774	5.655					
BUT 359 28774	5.780					
BUT 360 28774	5.905					
BUT 361 28774	6.030					
BUT 362 28774	6.280					
BUT 363 28774	6.530					
BUT 364 28774	6.780					
BUT 365 28774	7.030					

Back-Up Rings

Back-Up Rings

Imperial Seals

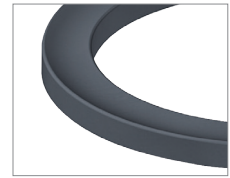
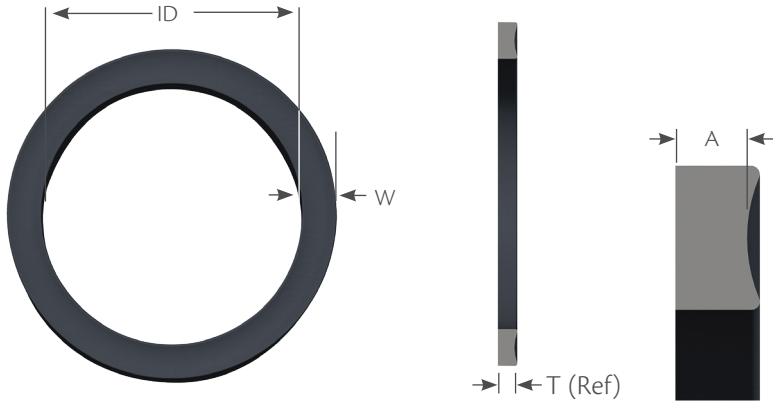
Scarf PTFE (MS 28774)

Back-Up Rings

Part Number	ID	T ± 0.005	W ± 0.002	G	A°
BUT 366 28774	7.280				
BUT 367 28774	7.530				
BUT 368 28774	7.780				
BUT 369 28774	8.030				
BUT 370 28774	8.280				
BUT 371 28774	8.530				
BUT 372 28774	8.780				
BUT 373 28774	9.030				
BUT 374 28774	9.280				
BUT 375 28774	9.530				
BUT 376 28774	9.780				
BUT 377 28774	10.030				
BUT 378 28774	10.530				
BUT 379 28774	11.030				
BUT 380 28774	11.530				
BUT 381 28774	12.030	± 0.003	0.070	0.183	0.007 to 0.000
BUT 382 28774	13.030				
BUT 383 28774	14.030				
BUT 384 28774	15.030				
BUT 385 28774	16.030				
BUT 386 28774	17.030				
BUT 387 28774	18.030				
BUT 388 28774	19.030				
BUT 389 28774	20.030				
BUT 390 28774	21.030				
BUT 391 28774	22.030				
BUT 392 28774	23.030				
BUT 393 28774	24.030				
BUT 394 28774	25.030				
BUT 395 28774	26.030				
BUT 425 28774	4.553				
BUT 426 28774	4.678				
BUT 427 28774	4.803				
BUT 428 28774	4.928				
BUT 429 28774	5.053				
BUT 430 28774	5.178				
BUT 431 28774	5.303				
BUT 432 28774	5.428				
BUT 433 28774	5.553	± 0.003	0.105	0.236	0.008 to 0.000
BUT 434 28774	5.678				
BUT 435 28774	5.803				
BUT 436 28774	5.928				
BUT 437 28774	6.053				
BUT 438 28774	6.276				
BUT 439 28774	6.526				
BUT 440 28774	6.776				
BUT 441 28774	7.026				

Part Number	ID	T ± 0.005	W ± 0.002	G	A°
BUT 442 28774	7.276				
BUT 443 28774	7.526				
BUT 444 28774	7.776				
BUT 445 28774	8.026				
BUT 446 28774	8.526				
BUT 447 28774	9.026				
BUT 448 28774	9.526				
BUT 449 28774	10.026				
BUT 450 28774	10.526				
BUT 451 28774	11.026				
BUT 452 28774	11.526				
BUT 453 28774	12.026				
BUT 454 28774	12.526				
BUT 455 28774	13.026				
BUT 456 28774	13.526				
BUT 457 28774	14.026				
BUT 458 28774	14.526	± 0.003	0.105	0.236	0.008 to ± 0.000
BUT 459 28774	15.026				
BUT 460 28774	15.526				
BUT 461 28774	16.026				
BUT 462 28774	16.526				
BUT 463 28774	17.026				
BUT 464 28774	17.526				
BUT 465 28774	18.026				
BUT 466 28774	18.526				
BUT 467 28774	19.026				
BUT 468 28774	19.526				
BUT 469 28774	20.026				
BUT 470 28774	21.026				
BUT 471 28774	22.026				
BUT 472 28774	23.026				
BUT 473 28774	24.026				
BUT 474 28774	25.026				
BUT 475 28774	26.026				

Contoured Sizes



The following sizing is only for elastomer (Ex: nitrile (NBR), fluorocarbon (FKM), urethane (PU), Hytrel® (TPC-ET) materials).

Back-Up Rings

Dash No.	ID	W	T	A	
004	0.096	± 0.005	0.053	0.049	
005	0.127				
006	0.140				
007	0.171				
008	0.202				
009	0.234				
010	0.265				
011	0.327				
012	0.390				
013	0.455				
014	0.518				
015	0.580				± 0.007
016	0.643				± 0.009
017	0.705				
018	0.768				
019	0.830				
020	0.893				
021	0.955				
022	1.018	± 0.010			
023	1.080				
024	1.143				
025	1.205	± 0.011			
026	1.268				
027	1.330				
028	1.393	± 0.013			
029	1.518				
030	1.643	± 0.015			
031	1.768				
032	1.893				
033	2.018	± 0.018			
034	2.143				
035	2.268				
036	2.393				
037	2.518				
038	2.643				
039	2.768	± 0.020			

Dash No.	ID	W	T	A			
040	2.893	± 0.020	0.053	0.049			
041	3.018						
042	3.268				± 0.024		
043	3.518						
044	3.768				± 0.027		
045	4.018						
046	4.268				± 0.030		
047	4.518						
048	4.768						
049	5.018				± 0.037		
050	5.268						
102	0.077				± 0.005	0.086	0.053
103	0.109						
104	0.140						
105	0.171						
106	0.202						
107	0.234						
108	0.265						
109	0.327						
110	0.390						
111	0.452						
112	0.515	± 0.007					
113	0.577	± 0.009					
114	0.640	± 0.010					
115	0.702						
116	0.765						
117	0.831						
118	0.893						
119	0.956						
120	1.018	± 0.012					
121	1.081						
122	1.143						
123	1.206						
124	1.268						
125	1.331						

Back-Up Rings

Contoured Sizes

Dash No.	ID	W	T	A
126	1.393	0.086 ± 0.003	0.053	0.045 ± 0.003
127	1.456			
128	1.518			
129	1.581			
130	1.643			
131	1.706			
132	1.768			
133	1.831			
134	1.893			
135	1.956			
136	2.018			
137	2.081			
138	2.143			
139	2.206			
140	2.268			
141	2.331			
142	2.393			
143	2.456			
144	2.518			
145	2.581			
146	2.643			
147	2.706			
148	2.768			
149	2.831			
150	2.893			
151	3.018			
152	3.268			
153	3.518			
154	3.768			
155	4.018			
156	4.268			
157	4.518			
158	4.768			
159	5.018			
160	5.268			
161	5.518			
162	5.768			
163	6.018			
164	6.268			
165	6.518			
166	6.768			
167	7.018			
168	7.268			
169	7.518			
170	7.768			
171	8.018			

Dash No.	ID	W	T	A			
172	8.268	0.086 ± 0.003	0.053	0.045 ± 0.003			
173	8.518						
174	8.768						
175	9.018						
176	9.268						
177	9.518						
178	9.768						
201	0.202	0.118 ± 0.004	0.050	0.040 ± 0.003			
202	0.265						
203	0.327						
204	0.390						
205	0.455						
206	0.518						
207	0.580						
208	0.643						
209	0.705						
210	0.766						
211	0.828						
212	0.891						
213	0.953						
214	1.016						
215	1.078						
216	1.141						
217	1.203						
218	1.266						
219	1.334						
220	1.397						
221	1.459						
222	1.522						
223	1.647						
224	1.772						
225	1.897						
226	2.022						
227	2.147						
228	2.272						
229	2.397						
230	2.522						
231	2.631						
232	2.756						
233	2.881						
234	3.006						
235	3.131						
236	3.256						
237	3.381						
238	3.506						

Dash No.	ID	W	T	A	
239	3.631	0.118 ± 0.004	0.050	0.040 ± 0.003	
240	3.756				
241	3.881				± 0.028
242	4.006				
243	4.131				
244	4.256				
245	4.381				
246	4.506				± 0.030
247	4.631				
248	4.768				
249	4.893				
250	5.018				
251	5.143				
252	5.268				
253	5.393				± 0.035
254	5.518				
255	5.643				
256	5.768				
257	5.893				
258	6.018				
259	6.268				
260	6.518				± 0.040
261	6.768				
262	7.018				
263	7.268				
264	7.518				± 0.045
265	7.768				
266	8.018				
267	8.268				
268	8.518				
269	8.768	± 0.050			
270	9.018				
271	9.268				
272	9.518				
273	9.768	± 0.055			
274	10.018				
275	10.518				
276	11.018				
277	11.518				
278	12.018				
279	13.018	± 0.065			
280	14.018				
281	15.018				
282	15.989	± 0.075			
283	16.989	± 0.080			
284	17.989	± 0.085			

Dash No.	ID	W	T	A	
309	0.450	0.183 ± 0.005	0.076	0.060 ± 0.004	
310	0.513				± 0.005
311	0.575				± 0.007
312	0.638				
313	0.700				± 0.009
314	0.763				
315	0.825				
316	0.888				± 0.010
317	0.950				
318	1.013				
319	1.075				
320	1.138				
321	1.200				
322	1.263				± 0.012
323	1.316				
324	1.388				
325	1.513				
326	1.638				
327	1.763				± 0.015
328	1.888				
329	2.013				
330	2.138				± 0.018
331	2.268				
332	2.393				
333	2.518				
334	2.643				± 0.020
335	2.768				
336	2.893				
337	3.018				
338	3.143				
339	3.273				± 0.024
340	3.398				
341	3.523				
342	3.648				
343	3.773	± 0.028			
344	3.898				
345	4.028				
346	4.153				
347	4.278				
348	4.403				
349	4.528	± 0.030			
350	4.653				
351	4.778				
352	4.903				
353	5.028	± 0.037			
354	5.153				

Back-Up Rings

Back-Up Rings

Imperial Seals

Contoured Sizes

Back-Up Rings

Dash No.	ID	W	T	A	
355	5.278	0.183 ± 0.005	0.076	0.060 ± 0.004	
356	5.403				
357	5.528				
358	5.653				± 0.037
359	5.778				
360	5.903				
361	6.028				
362	6.278				
363	6.528				± 0.040
364	6.778				
365	7.028				
366	7.278				± 0.045
367	7.528				
368	7.778				
369	8.028				
370	8.278				
371	8.528				± 0.050
372	8.778				
373	9.028				
374	9.278				± 0.055
375	9.528				
376	9.778				
377	10.028				
378	10.528				± 0.060
379	11.028				
380	11.528				
381	12.028				± 0.065
382	13.028				
383	14.028				± 0.070
384	15.028				
385	16.008				± 0.075
386	17.008				± 0.080
387	18.008				± 0.085
388	19.006				± 0.090
389	20.006				± 0.095
390	21.006				
391	22.006	± 0.100			
392	22.993	± 0.105			
393	23.993	± 0.110			
394	24.993	± 0.115			
395	25.993	± 0.120			
425	4.551	0.236 ± 0.006	0.117	0.096 ± 0.005	
426	4.676				
427	4.801				
428	4.926				

Dash No.	ID	W	T	A	
429	5.051	0.236 ± 0.006	0.117	0.096 ± 0.005	
430	5.176				
431	5.301				
432	5.426				± 0.037
433	5.551				
434	5.676				
435	5.801				
436	5.926				
437	6.051				
438	6.274				± 0.040
439	6.524				
440	6.774				
441	7.024				± 0.045
442	7.274				
443	7.524				
444	7.774				
445	8.024				± 0.055
446	8.524				
447	9.024				± 0.060
448	9.524				
449	10.024				
450	10.524				
451	11.024				
452	11.524				
453	12.024				
454	12.524				
455	13.024				
456	13.524				± 0.070
457	14.024				
458	14.524				
459	15.024				
460	15.524				
461	16.004				± 0.075
462	16.504				
463	17.004				± 0.080
464	17.504	± 0.085			
465	18.004				
466	18.504				
467	19.004	± 0.090			
468	19.504				
469	20.004	± 0.095			
470	21.004				
471	22.004	± 0.100			
472	23.004	± 0.105			
473	24.004	± 0.110			
474	25.004	± 0.115			
475	26.004	± 0.120			