Hy-Max O-ring Catalogue

Hy-Max o-rings

exclusively
distributed by

pacific seals

issue two

issue two

About Pacific Seals

Pacific Seals is New Zealand's premier seal distributor and manufacturer. Established by a hydraulics engineer in 1988, Pacific Seals rapidly grew to become New Zealand's most trusted supplier of hydraulic and pneumatic seals. Our dedication to technical excellence and customer service has continued to drive the team and Pacific Seals now supplies thousands of customers around the country.

In April 2015, Pacific Seals was acquired by Pudney and Lee Ltd, and now operates as a division thereof. Pudney and Lee has been supplying the highest quality electrical goods and accessories to New Zealand for over 60 years, and our total dedication to customer service has seen us continuously top the industry awards year after year.

Pudney and Lee brings more than half a century of success in marketing, distribution and service to Pacific Seals. We are looking forward to growing and developing Pacific Seals current business and expanding our industrial market focus.

About Hy-Max

Pacific Seals are proud to bring you our exclusive range of Hy-Max o-rings, back up rings, and o-ring cord.

Every single Hy-Max o-ring undergoes 100% Quality Control checking to ensure you only receive the highest quality product.

Our o-rings are trusted in extreme industries around the world, including aerospace, automotive and heavy industry.

Hy-Max fluorocarbon o-rings are all manufactured with genuine Viton® by Du-Pont®.

Hy-Max o-rings are manufactured to the following standards:

AS9100C

ISO/TS 16949:2009

ISO 9001:2008

ISO 13485:2003

ISO 14001:2004

OHSAS 18001:2007

The Hy-Max material range conforms to the following material certifications:

NSF61 (drinking water – USA)

WRAS (drinking water – UK)

ACS (drinking water – France)

W-270 (drinking water – Germany)

KTW (drinking water – Germany)

UL 157 (automotive, gasoline)

BS EN 549 (pipelines, gas application)

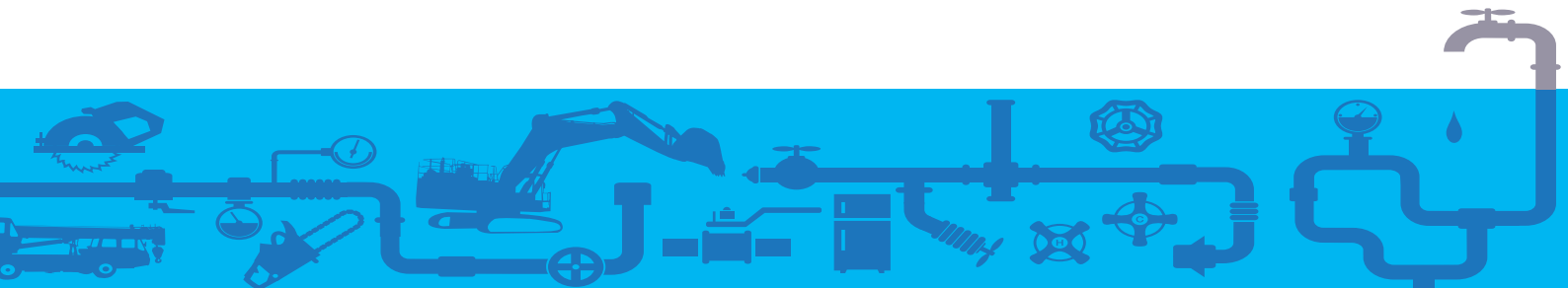
NORSOK M710NACE TM0297

ROHS EU directive 2001/65/EU

ADI FREE

REACH SVHC

NOTES



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Acrylonitrile Butadiene (NBR)

Polychloroprene (CR)

Polyurethane (AU, EU)

Silicone Rubber (VMQ, PVMQ)

Fluorocarbon (FPM, FKM, VITON®)

Ethylene Propylene (EPDM)

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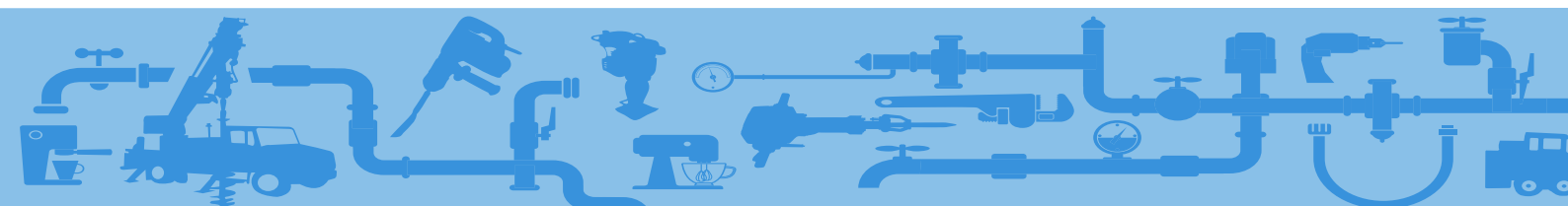
Forma Custom Seal Design Form 102

Nominal Inch	1/16	3/32	1/8	3/16	1/4
Actual mm	1.78	2.62	3.53	5.33	6.99
I.D.					
1/32	001				
3/64	002				
1/16	003	102			
5/64	**004**				
3/32	**005**	103			
1/8	**006**	104			
5/32	**007**	105			
3/16	**008**	106	201		
7/32	**009**	107			
1/4	**010**	108	202		
5/16	**011**	109	203		
3/8	**012**	**110**	204		
7/16	**013**	**111**	205	309	
1/2	**014**	**112**	206	310	
9/16	**015**	**113**	207	311	
5/8	**016**	**114**	208	312	
11/16	**017**	**115**	209	313	
3/4	**018**	**116**	**210**	314	
13/16	**019**	**117**	**211**	315	
7/8	**020**	**118**	**212**	316	
15/16	**021**	**119**	**213**	317	
1	**022**	**120**	**214**	318	
1 - 1/16	**023**	**121**	**215**	319	
1 - 1/8	**024**	**122**	**216**	320	
1 - 3/16	**025**	**123**	**217**	321	
1 - 1/4	**026**	**124**	**218**	322	
1 - 5/16	**027**	**125**	**219**	323	
1 - 3/8	**028**	**126**	**220**	324	400
1 - 7/16	517	**127**	**221**		
1 - 1/2	029	**128**	**222**	**325**	401
1 - 9/16	519	**129**	824		
1 - 5/8	030	**130**	**223**	**326**	402
1 - 11/16		**131**	826		
1 - 3/4	031	**132**	**224**	**327**	403
1 - 13/16		**133**	828		
1 - 7/8	032	**134**	**225**	**328**	404
1 - 15/16		**135**	830		
2	033	**136**	**226**	**329**	405
2 - 1/16		**137**	832		
2 - 1/8	034	**138**	**227**	**330**	406
2 - 3/16		**139**	834		
2 - 1/4	035	**140**	**228**	**331**	407

Nominal Inch	1/16	3/32	1/8	3/16	1/4
Actual mm	1.78	2.62	3.53	5.33	6.99
I.D.					
2 - 5/16		**141**	836		
2 - 3/8	036	**142**	**229**	**332**	408
2 - 7/16		**143**	838		
2 - 1/2	037	**144**	**230**	**333**	409
2 - 9/16		**145**	840		
2 - 5/8	038	**146**	**231**	**334**	410
2 - 11/16		**147**	842		
2 - 3/4	039	**148**	**232**	**335**	411
2 - 13/16		**149**	844		
2 - 7/8	040	150	**233**	**336**	412
2 - 15/16			846	**619**	
3	041	151	**234**	**337**	413
3 - 1/16		641			
3 - 1/8	532	642	**235**	**338**	414
3 - 1/4	042	152	**236**	**339**	415
3 - 3/8	534	643	**237**	**340**	416
3 - 1/2	043	153	**238**	**341**	417
3 - 5/8	536		**239**	**342**	418
3 - 3/4	044	154	**240**	**343**	419
3 - 7/8	538		**241**	**344**	420
4	045	155	**242**	**345**	421
4 - 1/8	540		**243**	**346**	422
4 - 1/4	046	156	**244**	**347**	423
4 - 3/8	542		**245**	**348**	424
4 - 1/2	047	157	**246**	**349**	**425**
4 - 5/8	544		**247**	350	**426**
4 - 3/4	048	158	**248**	351	**427**
4 - 7/8	546		**249**	352	**428**
5	049	159	**250**	353	**429**
5 - 1/8	548		**251**	354	**430**
5 - 1/4	050	160	**252**	355	**431**
5 - 3/8	550		**253**	356	**432**
5 - 1/2	551	161	**254**	357	**433**
5 - 5/8	552		**255**	358	**434**
5 - 3/4	553	162	**256**	359	**435**
5 - 7/8	554		**257**	360	**436**
6	555	163	**258**	361	**437**
6 - 1/4	557	164	**259**	362	**438**
6 - 1/2	559	165	**260**	363	**439**
6 - 3/4	562	166	**261**	364	**440**
7		167	**262**	365	**441**
7 - 1/4		168	**263**	366	**442**

Nominal Inch	1/16	3/32	1/8	3/16	1/4
Actual mm	1.78	2.62	3.53	5.33	6.99
I.D.					
7 - 1/2		169	**264**	367	**443**
7 - 3/4		170	**265**	368	**444**
8		171	**266**	369	**445**
8 - 1/4		172	**267**	370	674
8 - 1/2		173	**268**	371	**446**
8 - 3/4		174	**269**	372	676
9		175	**270**	373	**447**
9 - 1/4		176	**271**	374	678
9 - 1/2		177	**272**	375	**448**
9 - 3/4		178	**273**	376	680
10			**274**	377	**449**
10 - 1/4					682
10 - 1/2			275	378	**450**
10 - 3/4					684
11			276	379	**451**
11 - 1/4					686
11 - 1/2			277	380	**452**
11 - 3/4					688
12			278	381	**453**
13			279	382	**455**
13 - 1/2					**456**
14			280	383	**457**
14 - 1/2					**458**
15			281	384	**459**
15 - 1/2					**460**
16			282	385	461
16 - 1/2					462
17			283	386	463
17 - 1/2					464
18			284	387	465
18 - 1/2					466
19				388	467
19 - 1/2					468
20				389	469
21				390	470
22				391	471
23				392	472
24				393	473
25				394	474
26				395	475



IMPERIAL O-RING GUIDE NOMINAL O.D./I.D.

NOM.	I.D.	O.D.	W.
001	1/32	3/32	1/32
002	3/64	9/64	3/64
003	1/16	3/16	1/16
004	5/64	13/64	1/16
005	3/32	7/32	1/16
006	1/8	1/4	1/16
007	5/32	9/32	1/16
008	3/16	5/16	1/16
009	7/32	11/32	1/16
010	1/4	3/8	1/16
011	5/16	7/16	1/16
012	3/8	1/2	1/16
013	7/16	9/16	1/16
014	1/2	5/8	1/16
015	9/16	11/16	1/16
016	5/8	3/4	1/16
017	11/16	13/16	1/16
018	3/4	7/8	1/16
019	13/16	15/16	1/16
020	7/8	1	1/16
021	15/16	1 - 1/16	1/16
022	1	1 - 1/8	1/16
023	1 - 1/16	1 - 3/16	1/16
024	1 - 1/8	1 - 1/4	1/16
025	1 - 3/16	1 - 5/16	1/16
026	1 - 1/4	1 - 3/8	1/16
027	1 - 5/16	1 - 7/16	1/16
028	1 - 3/8	1 - 1/2	1/16
029	1 - 1/2	1 - 5/8	1/16
030	1 - 5/8	1 - 3/4	1/16
031	1 - 3/4	1 - 7/8	1/16
032	1 - 7/8	2	1/16
033	2	2 - 1/8	1/16
034	2 - 1/8	2 - 1/4	1/16
035	2 - 1/4	2 - 3/8	1/16
036	2 - 3/8	2 - 1/2	1/16
037	2 - 1/2	2 - 5/8	1/16
038	2 - 5/8	2 - 3/4	1/16
039	2 - 3/4	2 - 7/8	1/16
040	2 - 7/8	3	1/16
041	3	3 - 1/8	1/16
042	3 - 1/4	3 - 3/8	1/16
043	3 - 1/2	3 - 5/8	1/16
044	3 - 3/4	3 - 7/8	1/16
045	4	3 - 1/8	1/16
046	4 - 1/4	4 - 3/8	1/16
047	4 - 1/2	4 - 5/8	1/16
048	4 - 3/4	4 - 7/8	1/16
049	5	5 - 1/8	1/16
050	5 - 1/4	5 - 3/8	1/16

102	1/16	1/4	3/32
103	3/32	9/32	3/32
104	1/8	5/16	3/32
105	5/32	11/32	3/32
106	3/16	3/8	3/32
107	7/32	13/32	3/32
108	1/4	7/16	3/32
109	5/16	1/2	3/32
110	3/8	9/16	3/32
111	7/16	5/8	3/32
112	1/2	11/16	3/32
113	9/16	3/4	3/32

NOM.	I.D.	O.D.	W.
114	5/8	13/16	3/32
115	11/16	7/8	3/32
116	3/4	15/16	3/32
117	13/16	1	3/32
118	7/8	1 1/16	3/32
119	15/16	1 - 1/8	3/32
120	1	1 - 3/16	3/32
121	1 - 1/16	1 - 1/4	3/32
122	1 - 1/8	1 - 5/16	3/32
123	1 - 3/16	1 - 3/8	3/32
124	1 - 1/4	1 - 7/16	3/32
125	1 - 5/16	1 - 1/2	3/32
126	1 - 3/8	1 - 9/16	3/32
127	1 - 7/16	1 - 5/8	3/32
128	1 - 1/2	1 - 11/16	3/32
129	1 - 9/16	1 - 3/4	3/32
130	1 - 5/8	1 - 13/16	3/32
131	1 - 11/16	1 - 7/8	3/32
132	1 - 3/4	1 - 15/16	3/32
133	1 - 13/16	2	3/32
134	1 - 7/8	2 1/16	3/32
135	1 - 15/16	2 - 1/8	3/32
136	2	2 - 3/16	3/32
137	2 - 1/16	2 - 1/4	3/32
138	2 - 1/8	2 - 5/16	3/32
139	2 - 3/16	2 - 3/8	3/32
140	2 - 1/4	2 - 7/16	3/32
141	2 - 5/16	2 - 1/2	3/32
142	2 - 3/8	2 - 9/16	3/32
143	2 - 7/16	2 - 5/8	3/32
144	2 - 1/2	2 - 11/16	3/32
145	2 - 9/16	2 - 3/4	3/32
146	2 - 5/8	2 - 13/16	3/32
147	2 - 11/16	2 - 7/8	3/32
148	2 - 3/4	2 - 15/16	3/32
149	2 - 13/16	3	3/32
150	2 - 7/8	3 1/16	3/32
151	3	3 - 3/16	3/32
152	3 - 1/4	3 - 7/16	3/32
153	3 - 1/2	3 - 11/16	3/32
154	3 - 3/4	3 - 15/16	3/32
155	4	4 - 3/16	3/32
156	4 - 1/4	4 - 7/16	3/32
157	4 - 1/2	4 - 11/16	3/32
158	4 - 3/4	4 - 15/16	3/32
159	5	5 - 3/16	3/32
160	5 - 1/4	5 - 7/16	3/32
161	5 - 1/2	5 - 11/16	3/32
162	5 - 3/4	5 - 15/16	3/32
163	6	6 - 3/16	3/32
164	6 - 1/4	6 - 7/16	3/32
165	6 - 1/2	6 - 11/16	3/32
166	6 - 3/4	6 - 15/16	3/32
167	7	7 - 3/16	3/32
168	7 - 1/4	7 - 7/16	3/32
169	7 - 1/2	7 - 11/16	3/32
170	7 - 3/4	7 - 15/16	3/32
171	8	8 - 3/16	3/32
172	8 - 1/4	8 - 7/16	3/32
173	8 - 1/2	8 - 11/16	3/32
174	8 - 3/4	8 - 15/16	3/32
175	9	9 - 3/16	3/32
176	9 - 1/4	9 - 7/16	3/32

NOM.	I.D.	O.D.	W.
177	9 - 1/2	9 - 11/16	3/32
178	9 - 3/4	9 - 15/16	3/32

201	3/16	7/16	1/8
202	1/4	1/2	1/8
203	5/16	9/16	1/8
204	3/8	5/8	1/8
205	7/16	11/16	1/8
206	1/2	3/4	1/8
207	9/16	13/16	1/8
208	5/8	7/8	1/8
209	11/16	15/16	1/8
210	3/4	1	1/8
211	13/16	1 - 1/16	1/8
212	7/8	1 - 1/8	1/8
213	15/16	1 - 3/16	1/8
214	1	1 - 1/4	1/8
215	1 - 1/16	1 - 5/16	1/8
216	1 - 1/8	1 - 3/8	1/8
217	1 - 3/16	1 - 7/16	1/8
218	1 - 1/4	1 - 1/2	1/8
219	1 - 5/16	1 - 9/16	1/8
220	1 - 3/8	1 - 5/8	1/8
221	1 - 7/16	1 - 11/16	1/8
222	1 - 1/2	1 - 3/4	1/8
223	1 - 5/8	1 - 7/8	1/8
224	1 - 3/4	2	1/8
225	1 - 7/8	2 - 1/8	1/8
226	2	2 - 1/4	1/8
227	2 - 1/8	2 - 3/8	1/8
228	2 - 1/4	2 - 1/2	1/8
229	2 - 3/8	2 - 5/8	1/8
230	2 - 1/2	2 - 3/4	1/8
231	2 - 5/8	2 - 7/8	1/8
232	2 - 3/4	3	1/8
233	2 - 7/8	3 - 1/8	1/8
234	3	3 - 1/4	1/8
235	3 - 1/8	3 - 3/8	1/8
236	3 - 1/4	3 - 1/2	1/8
237	3 - 3/8	3 - 5/8	1/8
238	3 - 1/2	3 - 3/4	1/8
239	3 - 5/8	3 - 7/8	1/8
240	3 - 3/4	4	1/8
241	3 - 7/8	4 - 1/8	1/8
242	4	4 - 1/4	1/8
243	4 - 1/8	4 - 3/8	1/8
244	4 - 1/4	4 - 1/2	1/8
245	4 - 3/8	4 - 5/8	1/8
246	4 - 1/2	4 - 3/4	1/8
247	4 - 5/8	4 - 7/8	1/8
248	4 - 3/4	5	1/8
249	4 - 7/8	5 - 1/8	1/8
250	5	5 - 1/4	1/8
251	5 - 1/8	5 - 3/8	1/8
252	5 - 1/4	5 - 1/2	1/8
253	5 - 3/8	5 - 5/8	1/8
254	5 - 1/2	5 - 3/4	1/8
255	5 - 5/8	5 - 7/8	1/8
256	5 - 3/4	6	1/8
257	5 - 7/8	6 - 1/8	1/8
258	6	6 - 1/4	1/8
259	6 1/4	6 - 1/2	1/8
260	6 - 1/2	6 - 3/4	1/8

NOM.	I.D.	O.D.	W.
261	6 - 3/4	7	1/8
262	7	7 - 1/4	1/8
263	7 - 1/4	7 - 1/2	1/8
264	7 - 1/2	7 - 3/4	1/8
265	7 - 3/4	8	1/8
266	8	8 - 1/4	1/8
267	8 - 1/4	8 - 1/2	1/8
268	8 - 1/2	8 - 3/4	1/8
269	8 - 3/4	9	1/8
270	9	9 - 1/4	1/8
271	9 - 1/4	9 - 1/2	1/8
272	9 - 1/2	9 - 3/4	1/8
273	9 - 3/4	10	1/8
274	10	10 - 1/4	1/8
275	10 - 1/2	10 - 3/4	1/8
276	11	11 - 1/4	1/8
277	11 - 1/2	11 - 3/4	1/8
278	12	12 - 1/4	1/8
279	13	13 - 1/4	1/8
280	14	14 - 1/4	1/8
281	15	15 - 1/4	1/8
282	16	16 - 1/4	1/8
283	17	17 - 1/4	1/8
284	18	18 - 1/4	1/8

309	7/16	13/16	3/16
310	1/2	7/8	3/16
311	9/16	15/16	3/16
312	5/8	1	3/16
313	11/16	1 1/16	3/16
314	3/4	1 - 1/8	3/16
315	13/16	1 - 3/16	3/16
316	7/8	1 - 1/4	3/16
317	15/16	1 - 5/16	3/16
318	1	1 - 3/8	3/16
319	1 1/16	1 - 7/16	3/16
320	1 - 1/8	1 - 1/2	3/16
321	1 - 3/16	1 - 9/16	3/16
322	1 - 1/4	1 - 5/8	3/16
323	1 - 5/16	1 - 11/16	3/16
324	1 - 3/8	1 - 3/4	3/16
325	1 - 1/2	1 - 7/8	3/16
326	1 - 5/8	2	3/16
327	1 - 3/4	2 - 1/8	3/16
328	1 - 7/8	2 - 1/4	3/16
329	2	2 - 3/8	3/16
330	2 - 1/8	2 - 1/2	3/16
331	2 - 1/4	2 - 5/8	3/16
332	2 - 3/8	2 - 3/4	3/16
333	2 - 1/2	2 - 7/8	3/16
334	2 - 5/8	3	3/16
335	2 - 3/4	3 - 1/8	3/16
336	2 - 7/8	3 - 1/4	3/16
337	3	3 - 3/8	3/16
338	3 - 1/8	3 - 1/2	3/16
339	3 - 1/4	3 - 5/8	3/16
340	3 - 3/8	3 - 3/4	3/16
341	3 - 1/2	3 - 7/8	3/16
342	3 - 5/8	4	3/16
343	3 - 3/4	4 - 1/8	3/16
344	3 - 7/8	4 - 1/4	3/16
345	4	4 - 3/8	3/16
346	4 - 1/8	4 - 1/2	3/16

NOM.	I.D.	O.D.	W.
347	4 - 1/4	4 - 5/8	3/16
348	4 - 3/8	4 - 3/4	3/16
349	4 - 1/2	4 - 7/8	3/16
350	4 - 5/8	5	3/16
351	4 - 3/4	5 - 1/8	3/16
352	4 - 7/8	5 - 1/4	3/16
353	5	5 - 3/8	3/16
354	5 - 1/8	5 - 1/2	3/16
355	5 - 1/4	5 - 5/8	3/16
356	5 - 3/8	5 - 3/4	3/16
357	5 - 1/2	5 - 7/8	3/16
358	5 - 5/8	6	3/16
359	5 - 3/4	6 - 1/8	3/16
360	5 - 7/8	6 - 1/4	3/16
361	6	6 - 3/8	3/16
362	6 - 1/4	6 - 5/8	3/16
363	6 - 1/2	6 - 7/8	3/16
364	6 - 3/4	7 - 1/8	3/16
365	7	7 - 3/8	3/16
366	7 - 1/4	7 - 5/8	3/16
367	7 - 1/2	7 - 7/8	3/16
368	7 - 3/4	8 - 1/8	3/16
369	8	8 - 3/8	3/16
370	8 - 1/4	8 - 5/8	3/16
371	8 - 1/2	8 - 7/8	3/16
372	8 - 3/4	9 - 1/8	3/16
373	9	9 - 3/8	3/16
374	9 - 1/4	9 - 5/8	3/16
375	9 - 1/2	9 - 7/8	3/16
376	9 - 3/4	10 - 1/8	3/16
377	10	10 - 3/8	3/16
378	10 - 1/2	10 - 7/8	3/16
379	11	11 - 3/8	3/16
380	11 - 1/2	11 - 7/8	3/16
381	12	12 - 3/8	3/16
382	13	13 - 3/8	3/16
383	14	14 - 3/8	3/16
384	15	15 - 3/8	3/16
385	16	16 - 3/8	3/16
386	17	17 - 3/8	3/16
387	18	18 - 3/8	3/16
388	19	19 - 3/8	3/16
389	20	20 - 3/8	3/16
390	21	21 - 3/8	3/16
391	22	22 - 3/8	3/16
392	23	23 - 3/8	3/16
393	24	24 - 3/8	3/16
394	25	25 - 3/8	3/16
395	26	26 - 3/8	3/16

400	1 - 3/8	1 - 7/8	1/4
401	1 - 1/2	2	1/4
402	1 - 5/8	2 - 1/8	1/4
403	1 - 3/4	2 - 1/4	1/4
404	1 - 7/8	2 - 3/8	1/4
405	2	2 - 1/2	1/4
406	2 - 1/8	2 - 5/8	1/4
407	2 - 1/4	2 - 3/4	1/4
408	2 - 3/8	2 - 7/8	1/4
409	2 - 1/2	3	1/4
410	2 - 5/8	3 - 1/8	1/4
411	2 - 3/4	3 - 1/4	1/4
412	2 - 7/8	3 - 3/8	1/4

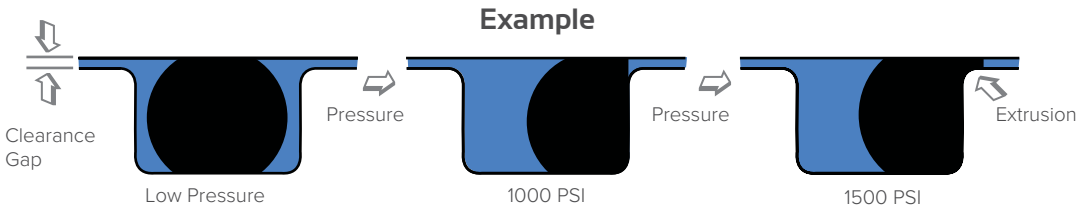
NOM.	I.D.	O.D.	W.
413	3	3 - 1/2	1/4
414	3 - 1/8	3 - 5/8	1/4
415	3 - 1/4	3 - 3/4	1/4
416	3 - 3/8	3 - 7/8	1/4
417	3 - 1/2	4	1/4
418	3 - 5/8	4 - 1/8	1/4
419	3 - 3/4	4 - 1/4	1/4
420	3 - 7/8	4 - 3/8	1/4
421	4	4 - 1/2	1/4
422	4 - 1/8	4 - 5/8	1/4
423	4 - 1/4	4 - 3/4	1/4
424	4 - 3/8	4 - 7/8	1/4
425	4 - 1/2	5	1/4
426	4 - 5/8	5 - 1/8	1/4
427	4 - 3/4	5 - 1/4	1/4
428	4 - 7/8	5 - 3/8	1/4
429	5	5 - 1/2	1/4
430	5 - 1/8	5 - 5/8	1/4
431	5 - 1/4	5 - 3/4	1/4
432	5 - 3/8	5 - 7/8	1/4
433	5 - 1/2	6	1/4
434	5 - 5/8	6 - 1/8	1/4
435	5 - 3/4	6 - 1/4	1/4
436	5 - 7/8	6 - 3/8	1/4
437	6	6 - 1/2	1/4
438	6 - 1/4	6 - 3/4	1/4
439	6 - 1/2	7	1/4
440	6 - 3/4	7 - 1/4	1/4
441	7	7 - 1/2	1/4
442	7 - 1/4	7 - 3/4	1/4
443	7 - 1/2	8	1/4
444	7 - 3/4	8 - 1/4	1/4
445	8	8 - 1/2	1/4
446	8 - 1/2	9	1/4
447	9	9 - 1/2	1/4
448	9 - 1/2	10	1/4
449	10	10 - 1/2	1/4
450	10 - 1/2	11	1/4
451	11	11 - 1/2	1/4
452	11 - 1/2	12	1/4
453	12	12 - 1/2	1/4
454	12 - 1/2	13	1/4
455	13	13 - 1/2	1/4
456	13 - 1/2	14	1/4
457	14	14 - 1/2	1/4
458	14 - 1/2	15	1/4
459	15	15 - 1/2	1/4
460	15 - 1/2	16	1/4
461	16	16 - 1/2	1/4
462	16 - 1/2	17	1/4
463	17	17 - 1/2	1/4
464	17 - 1/2	18	1/4
465	18	18 - 1/2	1/4
466	18 - 1/2	19	1/4
467	19	19 - 1/2	1/4
468	19 - 1/2	20	1/4
469	20	20 - 1/2	1/4
470	21	21 - 1/2	1/4
471	22	22 - 1/2	1/4
472	23	23 - 1/2	1/4
473	24	24 - 1/2	1/4
474	25	25 - 1/2	1/4
475	26	26 - 1/2	1/4

Standard O-Ring Cross Sections

Cross Section	Description	Cross Section	Description
1mm	Metric (European DIN Standard)	3.6mm	French, use #2 Imperial
1.2mm		4.0mm	Metric (European DIN Standard)
1.5mm	Metric (European DIN Standard)	4.5mm	Almost non-existent
1.6mm	Swedish, British, Japanese Metric	5.0mm	Metric (European DIN Standard)
1.78mm	Imperial #0 Section (1/16)	5.3mm	Imperial #3 Section (3/16)
1.9mm	Japanese Standard	5.5mm	Almost non-existent (usually 5.7)
2.0mm	Metric (European DIN Standard)	5.7mm	Japanese, Swedish and British Standard
2.4mm	Swedish, Japanese and British Standard	6.0mm	Metric (European DIN Standard)
2.5mm	Metric (European DIN Standard)	6.5mm	Almost non-existent
2.62mm	Imperial #1 Section (3/32)	6.99mm (7mm)	Imperial #4 Section (1/4)
2.7mm	French - use #1 Imperial	8.0mm	Metric (European DIN Standard)
3.0mm	Metric (European DIN Standard) and British Standard	8.4mm	Japanese, Swedish and British Standard
3.1mm	Japanese Standard	10.0mm	Metric (European DIN Standard)
3.5mm	Metric (European DIN Standard), can use #2 Sect (1/8)	12.0mm	Metric (European DIN Standard)
3.53mm	Imperial #2 Section		

Design Data: Extrusion Limit of O-ring & Clearance

The O-ring is contained in the gland and forced under pressure into any surface imperfections and any clearance gap available to it. O-rings can perform sealing through compression under low pressure conditions. However, as the pressure mounts, an O-ring will become distorted. The distortion increases the strain, resulting in tighter sealing. Under extremely high pressure the O-ring would extrude out of the clearance gap. The extrusion will cause seal failure in a standard gland configuration.



An anti-extrusion back-up ring, made of a tough cut-resistant material such as PTFE, HYTREL or hard rubber is suggested. In static applications it may be possible to modify the gland design to withstand the higher pressure without the addition of a back-up ring. In any case, care must be taken to make the extrusion gap as small as possible. The extent of the extrusion depends on the hardness of O-ring, pressure and clearance gap.

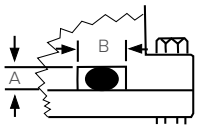
When using back-up rings the recess should be increased by width of the back-up ring.

O-Ring Cross Section	Backup thickness (width)	Imperial Code
up to 1.6mm	1.0mm	#0xx
1.78 to 3.53mm	1.4mm	#1xx-2xx
4 to 6mm	1.7mm	#3xx
6.99 to 8.4mm	2.5mm	#4xx

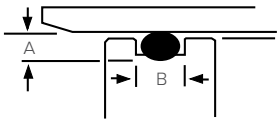
N90 O-Rings For Standard SAE-UNF Tube Diameters

O-Ring Code	I.D.	C.S.	Type	Tube Dash	Tube OD	Thread UNF
901	0.185	0.056	UNF	1	3/32”	
902	0.239	0.064	UNF	2	1/8”	5/16”
903	0.301	0.064	UNF	3	3/16”	3/8”
011	0.301	0.070	ORFS	4	1/4”	
904	0.351	0.072	UNF	4	1/4”	7/16”
012	0.364	0.070	ORFS	6	3/8”	
905	0.414	0.072	UNF	5	5/16”	1/2”
906	0.468	0.078	UNF	6	3/8”	9/16”
014	0.489	0.070	ORFS	8	1/2”	
016	0.614	0.070	ORFS	10	5/8”	
908	0.644	0.087	UNF	8	1/2”	3/4”
018	0.739	0.070	ORFS	12	3/4”	
910	0.755	0.097	UNF	10	5/8”	7/8”
210	0.734	0.139	SAE	8	1/2”	
020	0.864	0.070	ORFS	14	7/8”	
021	0.926	0.070	ORFS	16	1”	
912	0.924	0.116	UNF	12	3/4”	1-1/16”
214	0.984	0.139	SAE	12	3/4”	
914	1.047	0.116	UNF	14	7/8”	1-3/16”
916	1.171	0.116	UNF	16	1”	1-5/16”
025	1.176	0.070	ORFS	20	1-3/4”	
219	1.296	0.139	SAE	16	1”	
918	1.355	0.116	UNF	18	1-1/8”	1-1/2”
920	1.475	0.118	UNF	20	1-1/4”	1-5/8”
222	1.484	0.139	SAE	20	1-1/4”	
924	1.720	0.118	UNF	24	1-1/2”	1-7/8”
029	1.489	0.070	ORFS	24	1-1/2”	
225	1.859	0.139	SAE	24	1-1/2”	
135	1.925	0.103	ORFS	32	2”	

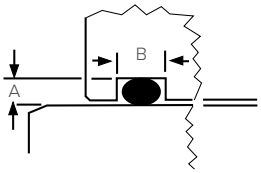
Metric O-Ring Machining Guide



FACE - STATIC



PISTON - DYNAMIC



GLAND - DYNAMIC

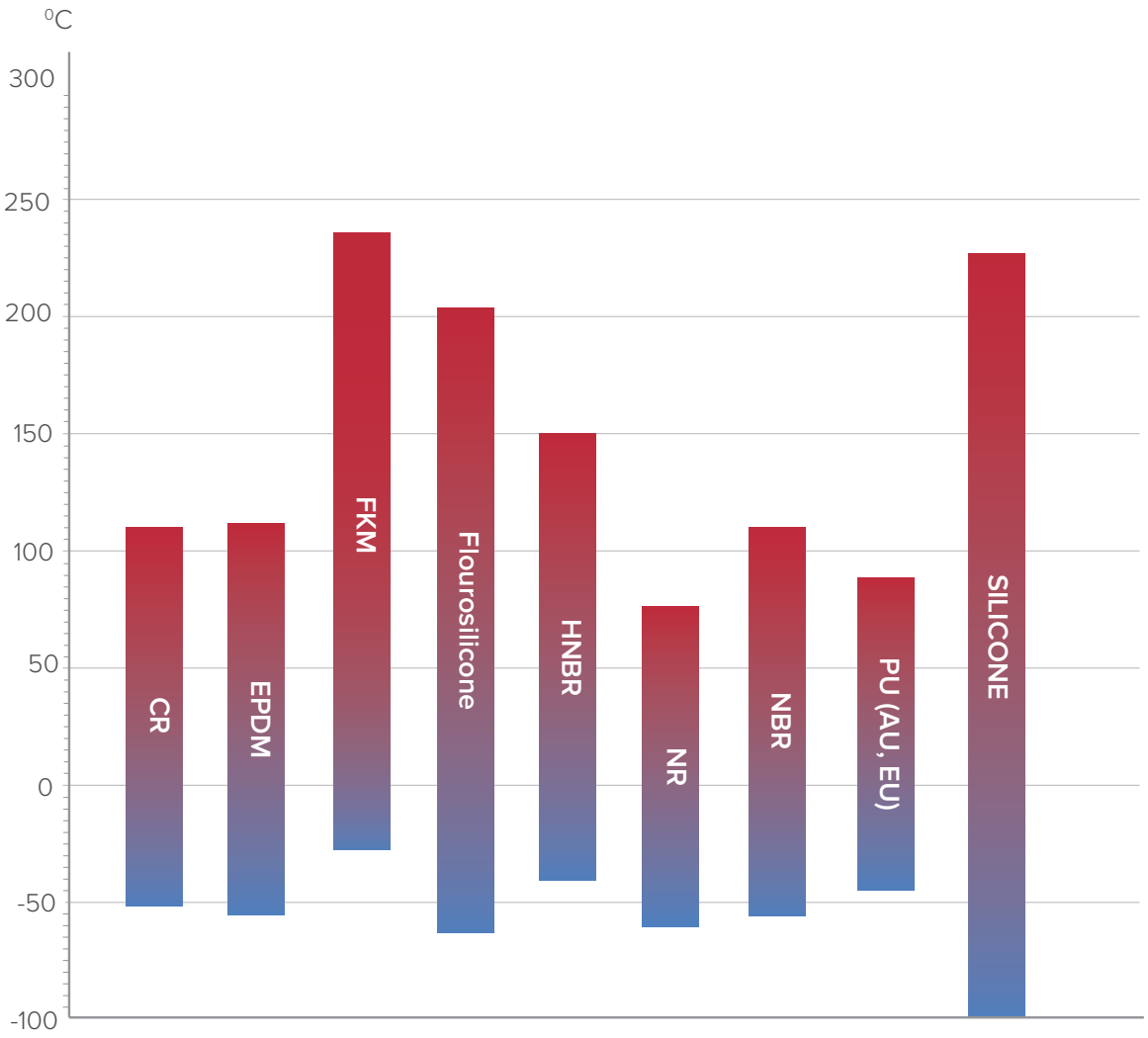
Groove Sizes Static Applications		
O-ring CS mm	Radial Depth (A) mm	Groove Width (B) mm
1	0.8	1.3
1.5	1.1	1.9
1.6	1.2	2.1
1.78	1.3	2.3
1.9	1.4	2.4
2	1.5	2.6
2.4	1.8	3.1
2.5	1.9	3.2
2.62	2	3.4
2.7	2.1	3.5
3	2.3	3.9
3.5	2.7	4.5
3.53	2.7	4.5
3.6	2.8	4.7
4	3.15	5.2
4.5	3.6	5.8
5	4	6.5
5.33	4.3	6.9
5.5	4.5	7.1
5.7	4.65	7.4
6	4.95	7.8
6.5	5.4	8.4
6.99	5.85	9.1
7	5.85	9.1
7.5	6.3	9.7
8	7.5	10.4
8.4	7.15	10.9
8.5	7.25	11
9	7.7	11.7
9.5	8.2	12.3
10	8.65	13

Groove Sizes Dynamic Applications Hydraulics		
O-ring CS mm	Radial Depth (A) mm	Groove Width (B) mm
1	0.9	1.3
1.5	1.3	1.9
1.6	1.4	2
1.78	1.5	2.3
1.9	1.6	2.4
2	1.7	2.4
2.4	2.1	2.9
2.5	2.2	3
2.62	2.3	3.1
2.7	2.4	3.2
3	2.6	3.6
3.5	3.1	4.2
3.53	3.1	4.2
3.6	3.2	4.3
4	3.5	4.8
4.5	4	5.4
5	4.45	6
5.33	4.7	6.4
5.5	4.95	6.6
5.7	5.1	6.9
6	5.4	7.2
6.5	5.8	7.8
6.99	6.3	8.4
7	6.3	8.4
7.5	6.7	9
8	7.2	9.6
8.4	7.6	10.1
8.5	7.7	10.2
9	8.2	10.8
9.5	8.6	11.4
10	9.1	12

Groove Sizes Dynamic Applications Pneumatics		
O-ring CS mm	Radial Depth (A) mm	Groove Width (B) mm
1	0.95	1.3
1.5	1.35	1.9
1.6	1.45	2
1.78	1.55	2.3
1.9	1.75	2.4
2	1.8	2.4
2.4	2.15	2.9
2.5	2.25	3
2.62	2.35	3.1
2.7	2.45	3.2
3	2.75	3.6
3.5	3.25	4.2
3.53	3.25	4.2
3.6	3.35	4.3
4	3.7	4.8
4.5	4.2	5.4
5	4.65	6
5.33	4.95	6.4
5.5	5.15	6.6
5.7	5.35	6.9
6	5.65	7.2
6.5	6.1	7.8
6.99	6.6	8.4
7	6.6	8.4
7.5	7.1	9
8	7.6	9.6
8.4	7.9	10.1
8.5	8	10.2
9	8.5	10.8
9.5	9	11.4
10	9.5	12

Service Temperature Range Chart

This service temperature range is for reference only. In service, some specific compounds may not reach the maximum temperature as indicated in this chart. However, higher temperatures may be tolerated if exposure is short period or intermittent.



Acrylonitrile Butadiene (NBR)

Nitrile rubber, also known as NBR or Buna® N, is one of the most commonly used sealing elastomers due its resistance to petroleum based fuels and lubricants and its relatively low price. Nitrile elastomers are copolymers of acrylonitrile and butadiene. There are a number of common variations of nitrile compounds.

Acrylonitrile Content

The acrylonitrile (ACN) content of the polymer chains can be varied from 18% to 50%. Lower ACN content gives better low temperature properties but poorer resistance to fuels and polar lubricants. Higher ACN content gives poorer low temperature properties but improved fuels and polar lubricants resistance. Standard NBRs typically have 34% ACN content.

Cure system – sulphur cured vs. peroxide-cured

Standard nitriles are usually sulphur-cured. Sulphur-cured compounds offer better low temperature properties but are more prone to hardening at high temperatures. Peroxide-cured nitriles have better heat resistance and lower compression sets but are more expensive and are more difficult to process.

Other common variations

- Nitriles are often internally lubricated to improve ease of installation or reduce friction for dynamic applications.
- Nitriles can be formulated with only “white list” ingredients as specified in 21CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- Nitriles can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.
- Nitriles can also be submitted for approval to Underwriters Laboratories (UL) for use in applications as prescribed in UL157.
- Nitrile rubber can be combined with polyvinyl chloride (PVC) to create fuel, ozone, and weathering resistance NBR- PVC blends.

General Information

ASTM D1418 Designation	NBR
ISO/DIN 1629 Designation	NBR
ASTM D2000/ SAE J 200 Codes	BF, BG BK, CH
Standard Colour(s)	Black
Hardness Range	30 to 95 Shore A
Relative Cost	Low

Service Temperatures

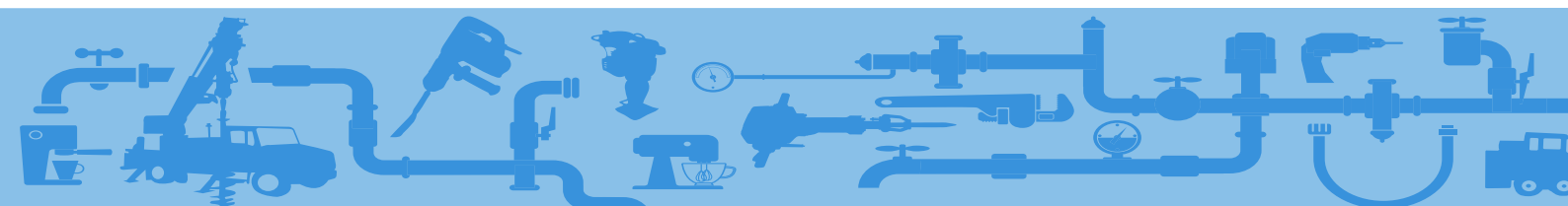
Standard Low Temperature	-40°C -40°F
Standard High Temperature	100°C 212°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	135°C 275°F

Performs well in:

* Petroleum based oils and fuels
* Aliphatic hydrocarbons
* Vegetable oils
* Silicone oils and greases
* Ethylene glycol
* Dilute acids
* Water to below underline

Doesn’t perform well in:

* Aromatic hydrocarbons
* Automotive brake fluid
* Chlorinated hydrocarbons
* Ketones
* Ethers, esters
* Phosphate ester hydraulic fluids
* Strong acids
* Ozone/ weathering/ sunlight



Polychloroprene (CR)

Chloroprene rubber was one of the first successful synthetic elastomers made by DuPont in 1930, The common trade name is Neoprene. It is prepared by emulsion polymerisation of chloroprene, or 2-chlorobutadiene. CR is a multi-purpose elastomer which yields a balanced combination of properties. It has a good resistance to solar and ozone weathering and performs well in contact with oils and many chemicals. It also displays outstanding physial toughness and good resistance to fire.

Other common variations

- Chloroprene has been used in thousands of diverse environments including automotive, wire and cable industries.
- CR is usually used in air condition system, especially old refrigerated media like R12 or R22 and lubricant with mineral oil.
- Also called polychloroprene.

General Information	
ASTM D1418 Designation	CR
ISO/DIN 1629 Designation	CR
ASTM D2000/ SAE J 200 Codes	BC, BE
Standard Colour(s)	Black
Hardness Range	30 to 90 Shore A
Relative Cost	Low

Service Temperatures	
Standard Low Temperature	-40°C -40°F
Standard High Temperature	100°C 212°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	125°C 257°F

Performs well in:

* Refrigerants
* Ammonia
* Water
* Silicone grease and oils
* High aniline point mineral oil

Doesn't perform well in:

* Aromatic hydrocarbons
* Ketones
* Esters
* Ethers
* Strong oxidizing acids
* Chlorinated hydrocarbons

Polyurethane (AU, EU)

Polyurethane (PU) rubbers are distinguished into two types; one is polyester urethane (AU), the other is polyether urethane (EU). AU type urethanes have outstanding oil, fuel and solvent resistance but can be attacked by hydrolysis. EU type urethanes are hydrolisis stabilised which means they are not attacked by hydrolysis and still offer a fuel and oil resistance comparable to low ACN (18-22% ACN) Nitriles. EU type urethanes are used by Hallite®. All polyurethanes have excellent wear resistance, high tensile strength and high elasticity in comparison with any other elastomers.

Cure system – peroxide-cured

Standard PU compounds are peroxide-cured.

Other common variations

Polyurethane usually is applied in mechanical industry, especially in places where a material must have higher wear resistance and higher strength.

In hydraulic systems, TPU will be better than Polyurethane AU.

In some environments, moisture will condense on the surface of the seal, causing hydrolysis of AU Polyurethanes. In these instances, EU is preferred. Where oil resistance is also required, a high aniline point oil must be used for lubrication.

Polyurethane parts are highly recommended for quick hitch couplings because they offer good abrasion resistance and high pressure capabilities.

General Information	
ASTM D1418 Designation	AU, EU
ISO/DIN 1629 Designation	AU, EU
ASTM D2000/ SAE J 200 Codes	BG
Standard Colour(s)	Black, Transparent
Hardness Range	60 to 95 Shore A
Relative Cost	Medium-High

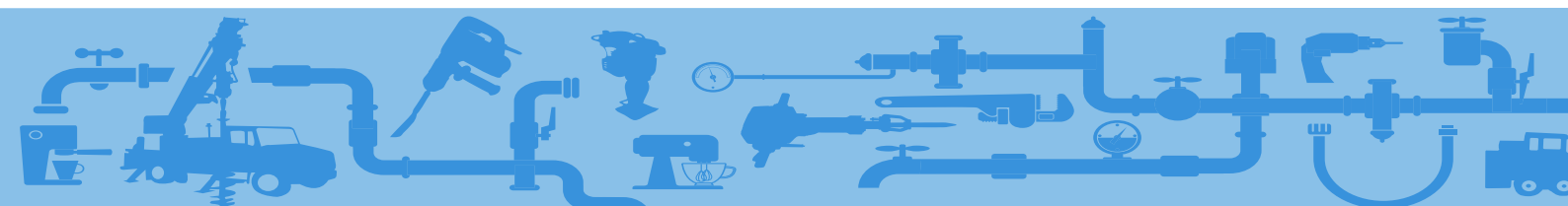
Service Temperatures	
Standard Low Temperature	-40°C -40°F
Standard High Temperature	80°C 176°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	100°C 212°F

Performs well in:

* Aliphatic hydrocarbon
* Mineral oil and grease
* Silicone oil and grease
* Ozone
* Water up to 50° (EU type)

Doesn't perform well in:

* Ketones
* Alcohols
* Esters
* Ethers
* Hot water and steam
* Alkalis, amines
* Acids
* Glycols



Silicone Rubber (VMQ, PVMQ)

Physically, silicones are based on silicon, an element derived from quartz. To create this class of synthetic elastomers, pendant organic groups such as methyl, phenyl and vinyl are attached to silicon atoms. The different addition of side chains can achieve significant variations in properties. Silicones have excellent heat, ozone and corona resistance, very good dielectric stability, and resistance to many oils, chemicals and solvents.

Cure system – peroxide-cured

Standard MQ compounds are peroxide-cured. Platinum-cured compounds offer better flexible properties and very low volatile matter. Platinum-cured silicones are usually applied in medical systems, but they need to be produced in a clean room and the high cost of platinum catalyzers limit their use.

Other common variations

Silicones can be formulated with only 'white list' ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.

Silicones can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.

Silicones are used in automotive systems like boots, oil filter valves, gaskets etc.

Silicone parts can be used in medical systems which require compliance to USP CLASS V1.

General Information	
ASTM D1418 Designation	Q, MQ, VMQ, PVMQ
ISO/DIN 1629 Designation	Q, MQ, VMQ, PVMQ
ASTM D2000/ SAE J 200 Codes	FC, FE, GE
Standard Colour(s)	Brown
Hardness Range	20 to 90 Shore A
Relative Cost	Medium-High

Service Temperatures	
Standard Low Temperature	-60°C -76°F
Standard High Temperature	225°C 437°F
Special Compound Low Temperature	-100°C -148°F
Special Compound High Temperature	300°C 572°F

Performs well in:

* Engine and transmission oil (mineral oils)
* Diluted salt solution
* Moderate temperature water
* Dry heat
* Ozone and Weather resistance

Doesn't perform well in:

* Concentrated acids and alkalis
* Steam over 120°C
* Petroleum oils and fuel
* Ketones

Fluorocarbon (FPM, FKM, VITON®)

Fluorocarbon is a well-known high performace rubber, with excellent resistance to high temperature, ozone, weather, oxygen, mineral oils, fuels, hydraulic fluids, aromatics and many organic solvents and chemicals.

Fluorine content

Viton® system gum like general type (A-TYPE, 66% flourine), middle flourine content type (B-, GBL-TYPE, 67-68.5% flourine), high flourine content type (F-, GF-TYPE, 67-68.5% flourine), improving low temperature flexibility type (GLT-, GFLT) and excellent resistance to more chemicals and solvents - Viton® ETP Extreme. We also can supply excellent acid and alkalai resistance parts made by Viton® TBR.

Cure system bisphenol cured vs. peroxide-cured

Standard FKM compounds are bisphenol cured. Peroxide-cured possess better acid solution resistance than the bisphenol cured, and can replace litharge-cured FKM in acid solution. In lubricants with organic amide or amine additives peroxide cured Viton® will perform better than bisphenol cured FKM.

Other common variations

FKM can also be submitted for approval to Underwriters Laboratories (UL) for use in applications as prescribed in UL157.

FKM has excellent high temperature, oil, solvent, flame, chemical and weather resistance, and it is usually applied in automotive, chemical processing, and aerospace industries.

Viton® GLT is broadly used in thermal range of -40°C to +250°C and it has outstanding resistance to agressive HTS-type oils which are commonly used in the aerospace industry. Viton® ETP is usually applied in the chemical industry.

In some fuels with added several methanol, Viton® F and B are more usable than

A-types, especially F-type.

General Information

ASTM D1418 Designation	Q, MQ, VMQ, PVMQ
ISO/DIN 1629 Designation	Q, MQ, VMQ, PVMQ
ASTM D2000/ SAE J 200 Codes	FC, FE, GE
Standard Colour(s)	Rust
Hardness Range	20 to 90 Shore A
Relative Cost	Medium-High

Service Temperatures

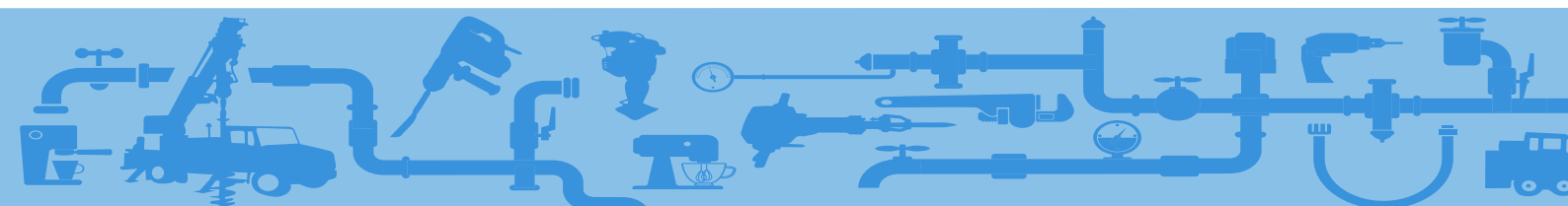
Standard Low Temperature	-60°C -76°F
Standard High Temperature	225°C 437°F
Special Compound Low Temperature	-100°C -148°F
Special Compound High Temperature	300°C 572°F

Performs well in:

* Petroleum products
* Fuel blended with methanol or ethanol
* Diesel biodiesel blends
* Mineral oil and grease
* Silicone oil and grease
* High vacuum
* Ozone, weather and very high air temperature
* Strong acid

Doesn't perform well in:

* Ketones
* Low molecular weight organic acids (formic and acetic acids)
* Superheated steam
* Low molecular weight esters and ethers
* Phosphate ester based hydraulic fluids - Skydrol ®



Ethylene Propylene (EPDM)

EPDM is a copolymer of ethylene and propylene, and further a terpolymer of ethylene and propylene with a small amount of a third monomer (usually a diolefin) to permit vulcanization with sulfur. Generally EPDM possesses excellent resistance to ozone,sunlight and weathering, and has very good flexibility at low temperature, good chemical resistance (many dilute acids and alkalis, polar solvents), and good electrical insulation property.

Cure system – Sulfur-Cured vs. Peroxide-Cured

Standard EPDMs are usually sulfur-cured. Sulfur-cured compounds offer better flexible properties but are more prone to hardening and poorer compression set at high temperature. Peroxide-cured EPDMs have better heat resistance and lower compression set. It complies with long time usage especially for hose systems in the construction industry, but at the same time is more expensive and more difficult to produce than the sulfur-cured EPDM.

Other common variations

- EPDMs are often internally lubricated to improve ease of installation or reduce friction for dynamic applications.
- EPDMs can be formulated with only “white list” ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- EPDMs can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.
- EPDMs are usually used in automotive air conditioning system where R134a refrigerant gas and POE or PAG lubricant and new refrigerant for environment protection R744 is used. In R744 air conditioning system, it requires excellent resistance to explosive decompression in hydrogen dioxide at high pressure and high temperature.
- EPDMs are usually used in phosphate ester type hydraulic fluids.

General Information

ASTM D1418 Designation	EPM, EPDM
ISO/DIN 1629 Designation	EPM, EPDM
ASTM D2000/ SAE J 200 Codes	AA, BA, CA, DA
Standard Colour(s)	Black
Hardness Range	30 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-55°C -67°F
Standard Low Temperature	125°C 257°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	150°C 302°F

Performs well in:

* Alcohols
* Automotive brake fluid
* Ketones
* Dilute acids and alkalis
* Silicone oils & greases
* Steam to 400°F
* Water
* Phosphate ester based hydraulic fluids - Skydrol®
* Ozone, aging & weathering

Doesn’t perform well in:

* Aliphatic & aromatic hydrocarbons
* Di-ester based lubricants
* Halogenated solvents
* Petroleum based oils & greases

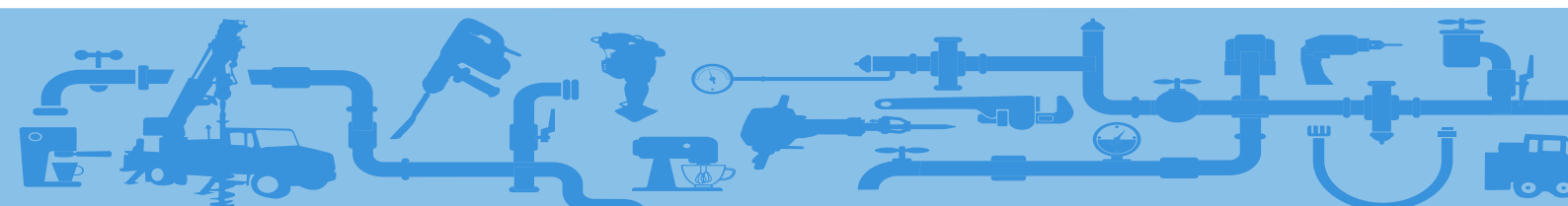
Fluid Compatibility Table

COMPATIBILITY RATING
SATISFACTORY
FAIR (Usually OK for Static Seal)
DOUBTFUL (Sometimes OK for Static Seal)
UNSATISFACTORY
INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
ACETALDEHYDE						
ACETAMIDE						
ACETIC ACID, GLACIAL						
ACETIC ACID, HOT, HIGH PRESS						
ACETIC ACID, 5%						
ACETONE						
ACETOPHENONE						
ACETYLENE						
AMMONIA, GAS, COLD						
AMMONIA, GAS, HOT						–
AMMONIA, LIQUID (ANHYDROUS)						
AMMONIUM HYDROXIDE 3 MOLAR						
AMMONIUM HYDROXIDE CONCENTRATED						
AMYL ACETATE						
ANDEROL, L -774(DI-ESTER)						
ANTIFREEZE						
ANILINE						
ANSUL ETHER 161 OR 181						
AROCLOR, 1248						
AROCLOR, 1254						
AROCLOR, 1260		–				
ASKAREL						
ASTM OIL NO. 1						
ASTM OIL NO.3						
ASTM REFERENCE FUEL A						
ASTM REFERENCE FUEL B						
ASTM REFERENCE FUEL C						
ASTM REFERENCE FUEL D					–	–
AUTO. TRANSMISSION FLUID					–	
BEER						
BENZALDEHYDE						
BENZENE						
BENZINE						
BENZOIC ACID						
BENZOPHENONE	–			–		–
BENZYL ALCOHOL						
BLEACH LIQUOR						

COMPATIBILITY RATING
SATISFACTORY
FAIR (Usually OK for Static Seal)
DOUBTFUL (Sometimes OK for Static Seal)
UNSATISFACTORY
INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
BORAX						
BORIC ACID						
BRAKE FLUID (NON-PETROLEUM)						
BROMINE						
BROMOBENZENE						
BUNKER OIL						
BUTANE						
BUTTER - ANIMAL FAT						
N-BUTYL ACETATE						
BUTYL ALCOHOL						
BUTAMINE OF N-BUTAMINE						
BUTYL CARBITOL						
BUTYL CELLOSOLVE						–
BUTYRALDEHYDE						
CARBITOL						
CARBITOL ACETATE					–	
CARBON DISULPHIDE						
CARBON TETRACHLORIDE						
CARBONIC ACID						
CASTOR OIL						
CELLOSOLVE						
CHASSIS GREASE					–	
CHLORACETIC ACID						–
CHLORACETONE						
CHLORODANE						
CHLORINE, DRY						–
CHLORINE DIOXIDE						–
CHLORINE DIOXIDE, 8% CL AS $NaClO_2$ IN SOLUTION						–
CHLORINE TRIFLUORIDE						
CHLORINE, WET						
CHLOROBENZOL					–	
CHLOROFORM						
CHLOROSULPHONIC ACID						
CHROME PLATING SOLUTIONS						
CHROMIC ACID, 50%						–
CITRIC ACID						
COD LIVER OIL						



Fluid Compatibility Table

COMPATIBILITY RATING

SATISFACTORY

FAIR (Usually OK for Static Seal)

DOUBTFUL (Sometimes OK for Static Seal)

UNSATISFACTORY

INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
COFFEE						
CORN OIL						
CREOSOTE, COAL TAR						
CREOSOTE OIL						
CREOSYLIC ACID					–	
CRUDE OIL						
CYCLOHEXANE						
CYCLOHEXNOL						
DECALIN						
DENATURED ALCOHOL						
DIACETONE						
DIBUTYLAMINE						
DIBUTYL PHTHALATE						
DICHLORO ANILINE						
DICHLORO BUTANE						
DIESEL OIL						
DIETHYLAMINE						
DIETHYL BENEZENE	–	–		–	–	–
DIETHYLENE GLYCOL						
DIMETHYL ETHER					–	–
DIMETHYL FORMAMIDE						
DIMETHYL PHTHALATE						–
DIMETHYL TEREPHTHALATE						–
DIOCTYL PHTHALATE						
DIOXANE						
DIPHENYL						
DOW CORNING-550						
DOW GUARD						
DOWTHERM, A						
DOWTHERM, E						
ELCO 28-EP LUBRICANT						
EPOXY RESINS	–				–	–
ETHANE						
ETHANOL						
ETHANOL AMINE						
ETHYL ACETATE-ORGANIC ESTER						

COMPATIBILITY RATING

SATISFACTORY

FAIR (Usually OK for Static Seal)

DOUBTFUL (Sometimes OK for Static Seal)

UNSATISFACTORY

INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
ETHYL BENZENE						
ETHYL CELLULOSE						
ETHYL CHLORIDE						
ETHYL ETHER						
ETHYL FORMATE						–
ETHYL HEXANOL						
ETHYL MERCAPTAN		–			–	
ETHLYENE CHLORIDE						
ETHYLENE OXIDE						
FORMADEHYDE						
FORMIC ACID	–				–	–
FREON 12						
FUEL OIL						
FURAN (FUFURAN)					–	–
FURFURAL					–	
FURFURYL ALCOHOL			–			
FYRQUEL A60					–	–
GALLIC ACID						–
GASOLINE						
GELATIN						
GLUCOSE						
GLYCERINE-GL YCEROL						
N-HEPTANE						
N-HEXALDEHYDE						
N-HEXANE						
HEXANOL					–	
HOME HEATING OIL					–	
HYDRAZINE						
HYDROCHLORIC ACID, 3 MOLAR						
HYDROCHLORIC ACID, CONCENTRATED				–	–	–
HYDROCYANIC ACID						
HYDROGEN PEROXIDE						
HYDROGEN PEROXIDE 90%						
HYDROGEN SULFIDE DRY, COLD						
HYDROGEN SULFIDE DRY, HOT						
HYDROGEN SULFIDE WET, COLD						

Fluid Compatibility Table

COMPATIBILITY RATING
SATISFACTORY
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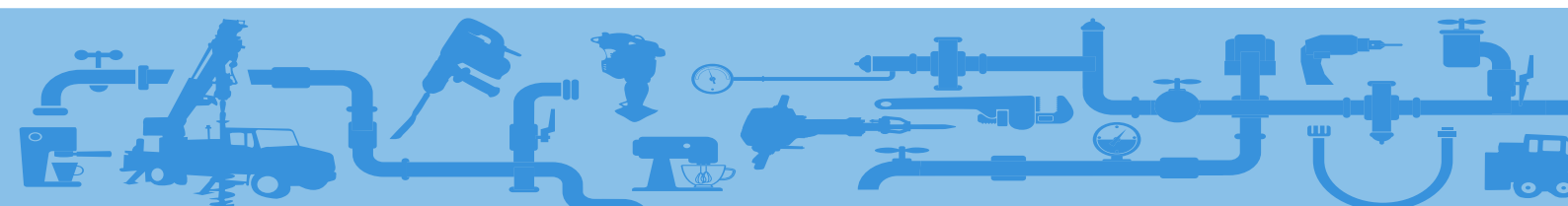
DOUBTFUL (Sometimes OK for Static Seal)
UNSATISFACTORY
INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
HYDROGEN SULFIDE WET, HOT						
HYDROQUINONE						
HYPOID GEAR LUBE					–	
IODINE						–
ISOCYANATE	–	–		–	–	–
ISO OCTANE						
ISOPHORONE (KETONE)						
ISOPAR K					–	
ISOPROPANOL						
ISOPROPYL ACETATE						
JP-4 (MIL-J-5624)						
JP-5 (MIL-J-5624)						
KEROSINE						
LACTIC ACID, COLD						
LACTIC ACID, HOT						
LACQUERS						
LARD, ANIMAL FAT						
LINOLEIC ACID					–	
LINSEED OIL						
LYE SOLUTIONS						
MALATHION				–		
MALEIC ACID					–	–
MERCURY					–	–
METER-CREOSOL						
METHANE						
METHANOL						
METHYL ACETATE						
METHYLACRYLIC ACID						
METHYL CELLOSOLVE						
METHYL CHLORIDE						
METHYL ETHYL KETONE (MEK)						
METHYL MERCAPTAN	–		–	–	–	–
MILK						
MINERAL OILS						
MINERAL SPIRITS					–	
MONOVINYL ACETYLENE					–	

COMPATIBILITY RATING
SATISFACTORY
FAIR (Usually OK for Static Seal)
DOUBTFUL (Sometimes OK for Static Seal)
UNSATISFACTORY
INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
MUSTARD GAS	–			–	–	
NAPTHA						
NAPHTHALENE						
NAPHTHENIC ACID						
NATURAL GAS						
NEATSFOOT OIL						
NITRIC ACID, 3 MOLAR						
NITRIC ACID, CONCENTRATED						
NITRIC ACID, RED FUMING (RFNA)						
NITRIC ACID, INHIBITED RED FUMING (IRFNA)						
NITROBENZENE						
NITROPROPANE						
N-OCTANE						
OCTANAL						
OLEIC ACID					–	
OLEUM (FUMING SULFURIC ACID)					–	
ORONITE 8200						
OXALIC ACID						
PEANUT OIL						
PENTANE, 2 METHYL						
PENTANE, 2-4, DIMETHYL						
PENTANE, 3-METHYL						
PERCHLOROETHYLENE						
PETROLATUM ETHER						
PHENOL						
PHENYLHYDRAZINE					–	–
PHOSPHORIC ACID, 3 MOLAR						
PHOSPHORIC ACID, CONCENTRATED						
PINE OIL						
POTASSIUM HYDROXIDE, 50%						
PROPANE						
PROPANOL					–	
PROPYL ACETATE						
PYDRAUL 10E						
PYDRAUL 29ELT, 30E, 50E, 65E						
PYDRAUL 115E						



Fluid Compatibility Table

COMPATIBILITY RATING

SATISFACTORY

FAIR (Usually OK for Static Seal)

DOUBTFUL (Sometimes OK for Static Seal)

UNSATISFACTORY

INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
PYDRAUL 29ELT, 30E, 50E, 65E						
PYDRAUL 115E						
PYDRAUL 230E, 312C, 540C						
PYRANOL						
PYRIDINE					–	
RAPESEED OIL						
SAE 10W30					–	
SEA (SALT) WATER						
SILICONE GREASES						
SILVER NITRATE						
SKELLY, SOLVENT B, C, E						–
SKYDROL					–	
SKYDROL 500						
SODIUM HYDROXIDE, 3 MOLAR						
SOVASOL NO. 1, 2 AND 3						
SOVASOL NO. 73 AND 74						
SOYBEAN OIL						
STEARIC ACID					–	
STODDARD SOLVENT						
SUCROSE SOLUTIONS						
SULFURIC ACID 3 MOLAR						
SULFURIC ACID CONCENTRATED						

COMPATIBILITY RATING

SATISFACTORY

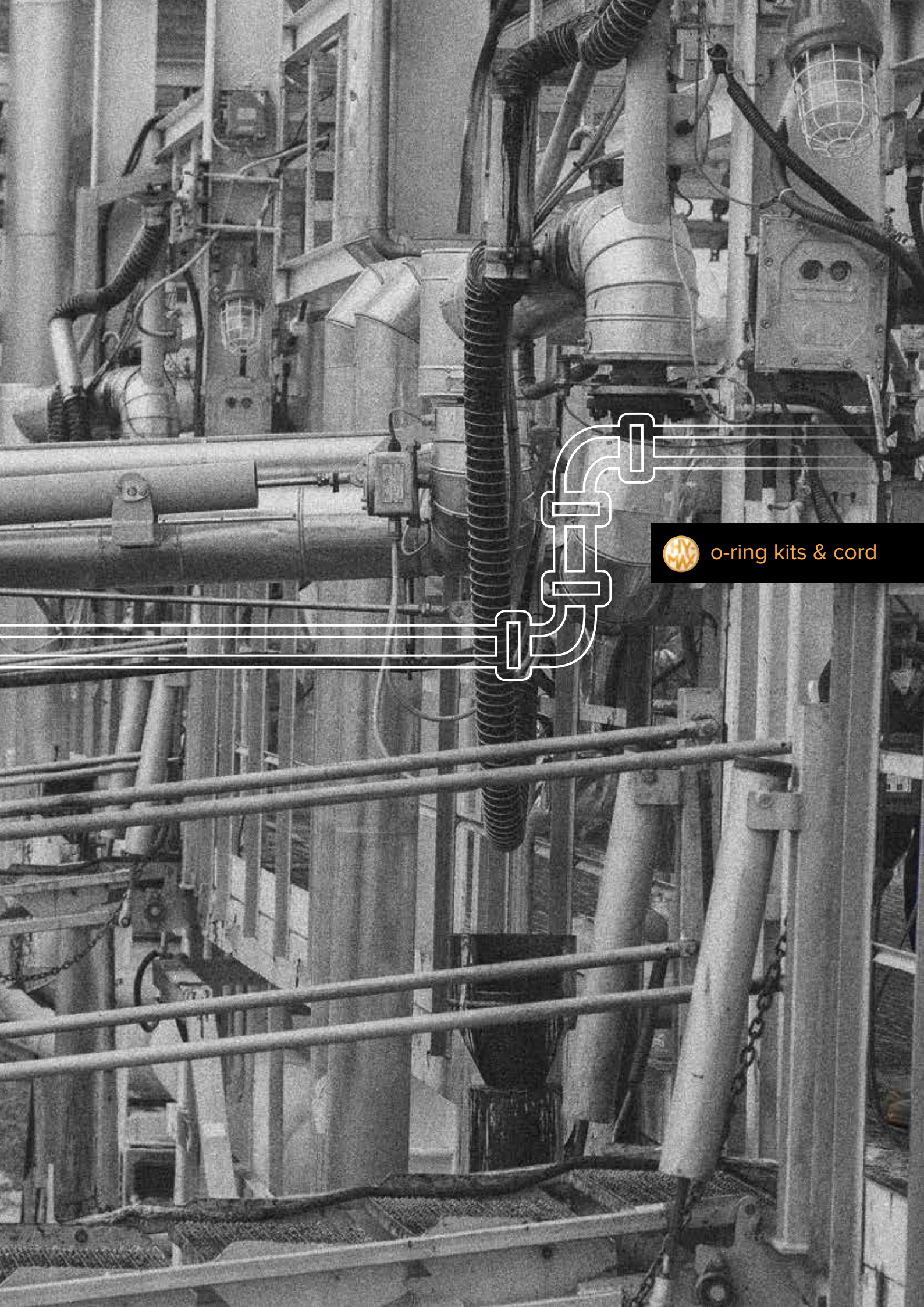
FAIR (Usually OK for Static Seal)

DOUBTFUL (Sometimes OK for Static Seal)

UNSATISFACTORY

INSUFFICIENT DATA –

	NITRILE	EPDM	FLUOROCARBON	NEOPRENE	FLUOROSILICONE	SILICONE
TALL OIL					–	–
TANNIC ACID					–	
TANNIC ACID 10%						
TAR, BITUMINOUS						
TARTARIC ACID						
TETRACHOROETHANE						–
TETRALIN						
TIDEWATER OIL-BEEDOL						
TIDEWATER MULTIGEAR 140, EP LUBE						
TOLUENE						
TRICHLOROETHYLENE						
TRIETHANOL AMINE						–
TURBINE OIL						
TURPENTINE						
UCON 50HB 280X					–	–
UNIVIS J-43						
VARNISH						
VINEGAR						
WATER						
WHEAT GERM OIL					–	
WHISKEY AND WINES						
WOOD OIL						


o-ring kits & cord

Metric O-Ring Kits

Benefits

- Reduce down-time by always having the required size O-Ring available.
- Reduce cost as no minimum order quantity is required for a single line item.
- Save cost as the O-Rings can be replaced without replacing the whole box.

Available in

NBR 70 - Pacific Seals part #47009

NBR 90 - Pacific Seals part #47010

FKM 75 - Pacific Seals part #47011

FKM 90 - Pacific Seals part #47012

O-Ring Kit Series 3 (Metric) - White Box

NBR 70/90 black or FKM 75/90 black
386 O-Rings in 30 different imperial sizes

Position No.	Dimensions (mm)	Quantity	Position No.	Dimensions (mm)	Quantity
006	3.00 x 2.00	16	211	20.00 x 3.00	12
007	4.00 x 2.00	16	212	22.00 x 3.00	12
008	5.00 x 2.00	16	213	24.00 x 3.00	12
009	6.00 x 2.00	16	214	25.00 x 3.00	12
010	7.00 x 2.00	16	215	27.00 x 3.00	12
011	8.00 x 2.00	16	216	28.00 x 3.00	12
012	10.00 x 2.00	16	217	30.00 x 3.00	12
110	10.00 x 2.50	13	218	32.00 x 3.00	12
111	11.00 x 2.50	13	219	33.00 x 3.00	12
112	12.00 x 2.50	13	220	35.00 x 3.00	12
113	14.00 x 2.50	13	221	36.00 x 3.00	12
114	16.00 x 2.50	13	222	38.00 x 3.00	12
115	17.00 x 2.50	13	325	38.00 x 4.00	9
116	19.00 x 3.00	13	326	41.00 x 4.00	9
210	19.00 x 3.50	12	327	44.00 x 4.00	9

Japanese Metric O-Ring Kits

Benefits

- Reduce down-time by always having the required size O-Ring available.
- Reduce cost as no minimum order quantity is required for a single line item.
- Save cost as the O-Rings can be replaced without replacing the whole box.

Available in

NBR 70 - Pacific Seals part #47005

NBR 90 - Pacific Seals part #47006

FKM 75 - Pacific Seals part #47007

FKM 90 - Pacific Seals part #47008

O-Ring Kit Series 2 (JIS) - Yellow Box

NBR 70/90 black or FKM 75/90 black
391 O-Rings in 30 different JIS sizes

Position No.	Size	Dimensions (mm)	Quantity	Position No.	Size	Dimensions (mm)	Quantity
006	P3	2.80 x 1.90	18	211		22.00 x 3.00	11
007	P4	2.80 x 190	18	212	P22.4	22.10 x 3.50	10
008	P5	4.80 x 1.90	18	213	G25	24.40 x 3.10	11
009	P6	5.80 x 1.90	18	214	P25	24.70 x 3.50	10
010	P7	6.80 x 1.90	18	215	P26	25.70 x 3.50	10
011	P8	7.80 x 1.90	18	216	G30	29.40 x 3.10	11
012	P9	8.80 x 1.90	18	217	P30	29.70 x 3.50	10
110	P10A	9.80 x 2.40	14	218	P32	31.70 x 3.50	10
111	P11	10.80 x 2.40	14	219	P34	33.70 x 3.50	10
112	P12	11.80 x 2.40	14	220	G35	34.40 x 3.10	11
113	P14	13.80 x 2.40	14	221	P36	35.70 x 3.50	10
114	P16	15.80 x 2.40	14	222	G40	39.40 x 3.50	11
115	P18	17.80 x 2.40	14	325	P40	39.70 x 3.50	10
116	P20	19.80 x 2.40	14	326	G45	44.40 x 3.10	11
210		20.00 x 3.00	11	327	P48	47.70 x 3.50	10

Imperial O-Ring Kits

Benefits

- Reduce down-time by always having the required size O-Ring available.
- Reduce cost as no minimum order quantity is required for a single line item.
- Save cost as the O-Rings can be replaced without replacing the whole box.

Available in

NBR 70 - Pacific Seals part #47001

NBR 90 - Pacific Seals part #47002

FKM 75 - Pacific Seals part #47003

FKM 90 - Pacific Seals part #47004

O-Ring Kit Series 1 (AS568) - Red Box

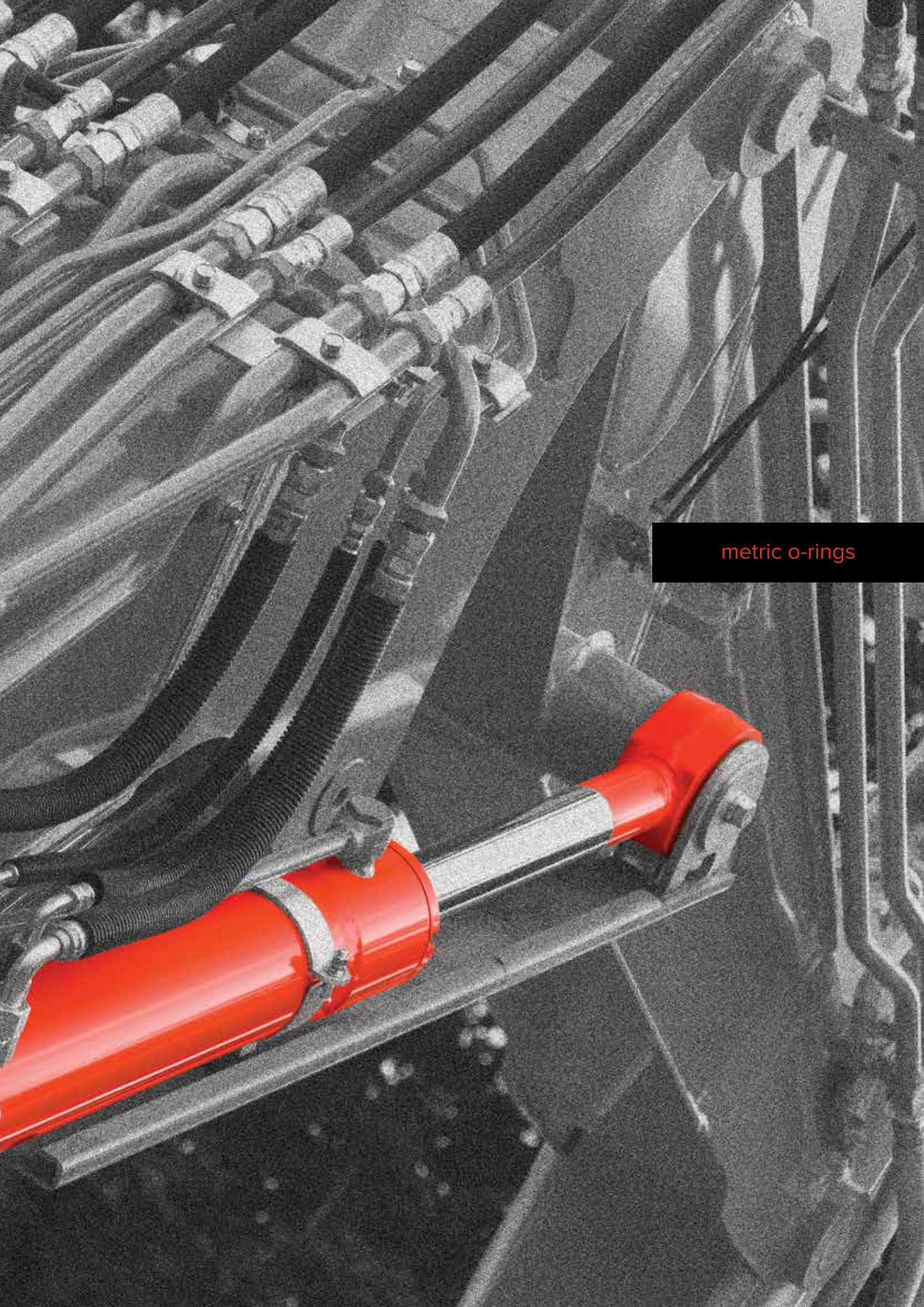
NBR 70/90 black or FKM 75/90 black
382 O-Rings in 30 different imperial sizes

Position No.	Size	Dimensions (mm)	Quantity	Position No.	Size	Dimensions (mm)	Quantity
006	2-006	2.90 x 1.78	20	211	2-211	20.22 x 3.53	10
007	2-007	3.68 x 1.78	20	212	2-212	21.82 x 3.53	10
008	2-008	4.47 x 1.78	20	213	2-213	23.39 x 3.53	10
009	2-009	5.28 x 1.78	20	214	2-214	24.99 x 3.53	10
010	2-010	6.07 x 1.78	20	215	2-215	26.57 x 3.53	10
011	2-011	7.65 x 1.78	20	216	2-216	28.17 x 3.53	10
012	2-012	9.25 x 1.78	20	217	2-217	29.74 x 3.53	10
110	2-110	9.19 x 2.62	13	218	2-218	31.34 x 3.53	10
111	2-111	10.77 x 2.62	13	219	2-219	32.92 x 3.53	10
112	2-112	12.37 x 2.62	13	220	2-220	34.52 x 3.53	10
113	2-113	13.94 x 2.62	13	221	2-221	36.09 x 3.53	10
114	2-114	15.54 x 2.62	13	222	2-222	37.69 x 3.53	10
115	2-115	17.12 x 2.62	13	325	2-325	37.47 x 5.33	7
116	2-116	18.72 x 2.62	10	326	2-326	40.64 x 5.33	7
210	2-210	18.64 x 3.53	10	327	2-327	43.82 x 5.33	7

O-Ring Cord (by the metre)

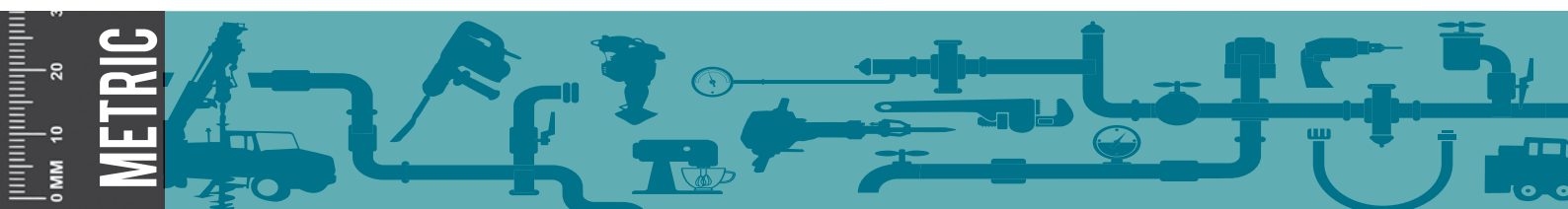
Our range of Hy-Max o-ring cord covers the most commonly used sizes, and is produced to the same exacting quality standards as all our o-rings. Sold by the metre, it allows o-rings of infinite diameters to be made. Splicing kits are available, or Pacific Seals can custom make stronger, vulcanised o-rings to your exact requirements

Cross Section (mm)	N70	Silicon	C70	Cross Section (mm)	N70	Silicon	C70
1.5	36021	38331	-	5.5	-	38316	-
1.55	43160	-	-	5.7	36033	40073	-
1.6	40290	-	-	6	36034	40075	-
1.78	-	40021	-	6.35	40291	38317	-
1.9	41905	-	-	6.99	36035	-	41703
2.5	36024	40034	-	8	36036	-	-
2.62	36026	40035	-	8	-	40072	41830
3	36027	38314	-	8.4	36037	40188	-
3.53	36028	40069	40618	9.5	36038	40292	-
4	36029	38321	-	10	36039	38319	-
4.5	36030	-	-	11	40066	40074	-
4.8	40065	-	-	12	36040	40183	-
5	36031	-	-	12.7	36041	40186	-
5.33	36032	40070	-				



metric o-rings

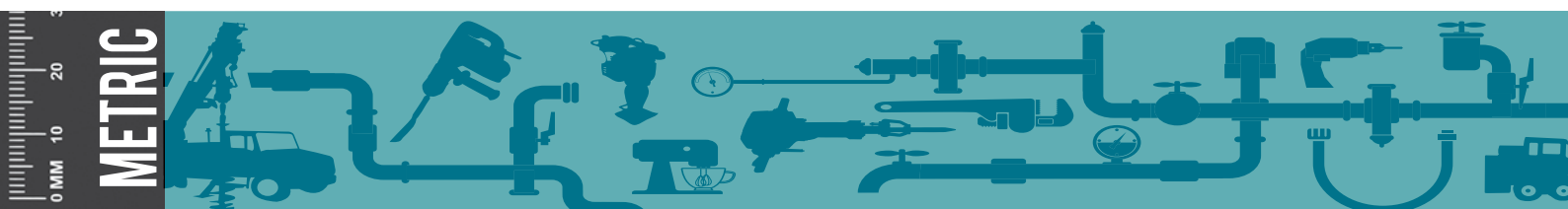
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
001	**0.74**	1.02	28486	28573	27555	36797	36847	-	47400	-	-	-
002	**1.07**	1.27	28065	28574	27556	36798	36848	-	47201	-	-	-
102	**1.24**	2.62	28114	28623	27605	36897	37316	-	47455	27096	-	-
003	**1.42**	1.52	28066	28575	27557	36799	36849	-	47402	-	-	-
	1.50	1.00	25339	-	-	-	-	-	-	-	-	-
	1.50	1.50	25303	-	-	-	-	-	-	-	-	-
606	**1.78**	1.02	-	-	42865	-	-	-	-	-	-	-
004	**1.78**	1.78	28067	28576	27558	36800	36850	-	47403	27049	-	-
	2.00	1.00	24229	-	-	-	-	-	-	-	-	-
	2.00	1.50	25306	-	-	-	-	-	-	-	-	-
	2.00	2.00	25503	-	22523	-	-	-	-	-	-	-
103	**2.06**	2.62	28115	28624	27606	36898	37317	-	47456	27097	-	-
	2.50	1.50	25304	20835	-	-	-	-	-	-	-	-
607	**2.54**	1.02	40284	-	-	-	-	-	-	-	-	-
005	**2.57**	1.78	28068	28577	27559	36801	36851	-	47404	27050	-	-
P3	**2.80**	1.90	24345	-	-	-	-	-	-	-	-	22854
104	**2.84**	2.62	28116	28625	27607	36899	37318	-	47457	27098	-	-
006	**2.90**	1.78	28069	28578	27560	36802	36852	42038	47153	27051	-	-
	3.00	1.00	24146	-	21166	-	40621	-	-	-	-	-
	3.00	1.50	24240	19639	33810	-	-	-	-	-	-	-
	3.00	2.00	24104	-	21124	-	-	-	-	-	-	-
	3.00	3.00	25301	-	-	-	-	-	-	-	-	-
	3.10	1.60	25193	-	22213	-	-	-	-	-	-	-
801	**3.17**	1.78	28191	-	-	-	-	-	-	-	-	-
	3.50	1.00	25480	-	-	-	-	-	-	-	-	-
	3.50	1.50	25459	-	47158	-	-	-	-	-	-	-
	3.60	2.40	25167	-	22187	-	-	-	-	-	-	-
105	**3.63**	2.62	28117	28626	27608	36900	37319	-	47458	27099	-	-
007	**3.68**	1.78	28070	28579	27561	36803	36853	-	47406	27052	39606	-
	3.80	1.25	25326	-	-	-	-	-	-	-	-	-
P4	**3.80**	1.90	24347	-	-	-	-	-	-	-	-	22856
	4.00	1.00	24147	-	21167	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	4.00	1.20	35062	-	-	-	-	-	-	-	-	-
	4.00	1.50	24241	-	-	-	-	-	-	-	-	-
	4.00	2.00	24105	-	21125	41560	-	-	-	-	-	-
	4.00	2.50	24143	-	-	-	-	-	-	-	-	-
	4.00	3.00	25138	-	-	-	-	-	-	-	-	-
	4.00	4.00	25522	-	-	-	-	-	-	-	-	-
	4.00	5.00	25506	-	-	-	-	-	-	-	-	-
	4.10	1.60	25194	-	-	-	-	-	-	-	-	-
201	**4.34**	3.53	28192	28700	27682	36974	37393	-	47532	27173	-	-
106	**4.42**	2.62	28118	28627	27609	36901	37320	-	47459	27100	-	-
008	**4.47**	1.78	28071	28580	27562	36804	36854	42039	47407	27053	39607	-
	4.50	2.00	25343	-	-	-	-	-	-	-	-	-
	4.60	2.40	25168	-	-	-	-	-	-	-	-	-
901	**4.70**	1.42	-	29061	28043	-	-	-	-	-	-	-
P5	**4.80**	1.90	24352	-	-	-	-	-	-	-	-	22861
	5.00	1.00	24231	-	21140	-	-	-	-	-	-	-
	5.00	1.20	25489	-	-	-	-	-	-	-	-	-
	5.00	1.50	24148	19679	21168	-	-	-	-	-	-	-
	5.00	2.00	24106	-	21126	-	-	-	-	-	-	-
	5.00	2.50	24144	-	21164	-	-	-	-	-	-	-
	5.00	3.00	24163	-	-	-	-	-	-	-	-	-
	5.00	4.00	25523	-	-	-	-	-	-	-	-	-
	5.10	1.60	25195	-	-	-	-	-	-	-	-	-
107	**5.23**	2.62	28119	28628	27610	36902	37321	-	47460	27101	-	-
009	**5.28**	1.78	28072	28581	27563	36805	36855	42040	47408	27054	39608	-
	5.30	2.40	25357	-	-	-	-	-	-	-	-	-
	5.50	1.00	39940	-	-	-	-	-	-	-	-	-
	5.60	2.40	25169	-	22189	-	-	-	-	-	-	-
P6	**5.80**	1.90	24346	-	-	-	-	-	-	-	-	22855
202	**5.94**	3.53	28193	28701	27683	36975	37394	-	47533	27174	43358	-
	6.00	1.00	24232	-	21252	-	-	-	-	-	-	-
	6.00	1.50	24243	-	42797	-	-	-	-	-	-	-

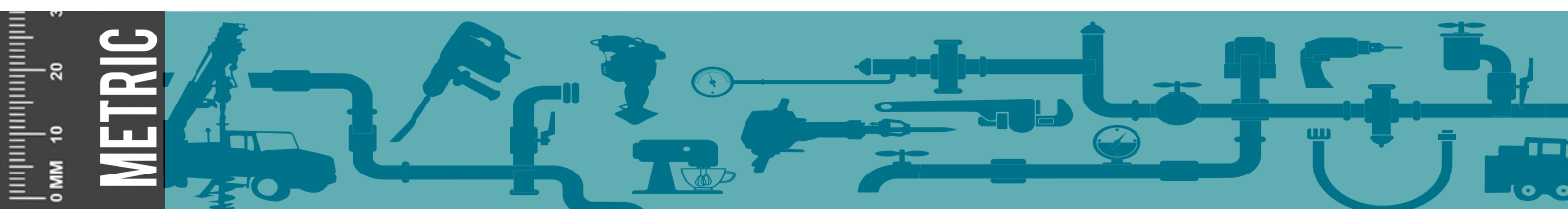
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	6.00	2.00	24107	19638	21127	42811	-	-	-	-	-	-
	6.00	2.50	25156	-	-	43230	-	-	-	-	-	-
	6.00	3.00	24202	-	21222	-	-	-	-	-	-	-
	6.00	4.00	25524	-	-	-	-	-	-	-	-	-
108	**6.02**	2.62	28120	28629	27611	36903	37322	-	47461	27102	43323	-
010[A]	**6.07**	1.78	28073	28582	27564	36806	36856	42041	47409	27055	37631	-
902	**6.07**	1.63	-	29062	-	-	-	-	-	-	-	-
	6.10	1.60	25196	-	22380	-	-	-	-	-	-	-
803	**6.35**	1.78	28464	-	-	-	-	-	-	-	-	-
	6.40	1.90	25360	-	-		-	-	-	-	-	-
	6.60	2.40	25170	-	-	-	-	-	-	-	-	-
610	**6.75**	1.78	28488	-	-	-	-	-	-	-	-	-
P7	**6.80**	1.90	25361	19884	-	-	-	-	-	-	-	22862
	7.00	1.00	24233	-	-	-	-	-	-	-	-	-
	7.00	1.50	24355	-	33809	-	-	-	-	-	-	-
	7.00	2.00	24108	-	21128	-	-	-	-	-	-	-
	7.00	2.50	24276	19807	-	-	-	-	-	-	-	-
	7.00	3.00	24408	-	21428	-	-	-	-	-	-	-
	7.00	4.00	25525	-	-	-	-	-	-	-	-	-
	7.10	1.60	25197	-	-	-	-	-	-	-	-	-
	7.30	2.40	25362	-	-	-	-	-	-	-	-	-
	7.50	3.00	40282	-	-	-	-	-	-	-	-	-
203	**7.52**	3.53	28194	28702	27684	36976	37395	-	47534	27175	43359	47056
109	**7.59**	2.62	28121	28630	27612	36904	37323	-	47462	27103	39954	-
	7.60	2.40	25171	-	22191	-	-	-	-	-	-	-
903	**7.65**	1.63	-	29063	-	-	-	-	-	-	-	-
011	**7.65**	1.78	28074	28583	27565	36807	36857	42042	47410	27056	37632	-
P8	**7.80**	1.90	24351	47808	-	-	-	-	-	-	-	22860
804	**7.95**	1.78	28491	-	-	-	-	-	-	-	-	-
	8.00	1.00	24234	-	21254	-	-	-	-	-	-	-
	8.00	1.50	24244	-	21264	-	-	-	-	-	-	-
	8.00	1.90	-	-	22383	-	-	-	-	-	-	-

[A] Also available in FVMQ - Part number 28534



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	8.00	2.00	24109	19640	21129	42485	-	-	-	-	-	-
	8.00	2.50	24277	-	21123	-	-	-	-	-	-	-
	8.00	3.00	24203	-	21223	-	-	-	-	-	-	-
	8.00	3.50	24359	-	-	-	-	-	-	-	-	-
	8.00	4.00	24311	-	-	-	-	-	-	-	-	-
	8.10	1.60	25180	-	22200	-	-	-	-	-	-	-
	8.30	2.40	-	-	22384	-	-	-	-	-	-	-
	8.50	1.00	47898	-	-	-	-	-	-	-	-	-
	8.50	1.50	25507	-	-	-	-	-	-	-	-	-
	8.50	2.50	-	-	-	-	-	47901	-	-	-	-
	8.60	2.40	25172	-	-	-	-	-	-	-	-	-
611	8.73	1.78	28465	28972	27954	-	-	-	-	-	-	-
P9	8.80	1.90	24350	19881	-	-	-	-	-	-	-	22859
904	8.92	1.83	28417	29064	-	-	-	-	-	-	-	-
	9.00	1.00	24235	-	-	-	-	-	-	-	-	-
	9.00	1.50	24357	-	21377	-	-	-	-	-	-	-
	9.00	2.00	24110	-	21130	-	-	-	-	-	-	-
	9.00	2.50	24138	-	21158	-	-	-	-	-	-	-
	9.00	3.00	24409	-	21429	-	-	-	-	-	-	-
	9.00	3.50	25111	-	-	-	-	-	-	-	-	-
	9.00	4.00	25526	-	-	-	-	-	-	-	-	-
	9.10	1.60	25181	-	22201	-	-	-	-	-	-	-
204	9.12	3.53	28195	28703	27685	36977	37396	-	47535	27176	43360	39955
110	9.19	2.62	28122	28631	27613	36905	37324	42053	47463	27104	37650	-
012	9.25	1.78	28075	28584	27566	36808	36858	42043	47411	27057	37633	-
	9.30	2.40	25367	-	-	-	-	-	-	-	-	-
P10	9.80	1.90	24349	19880	21369	-	-	-	-	-	-	22858
P10A	9.80	2.40	24598	20129	-	-	-	-	-	-	-	23107
613	9.92	2.62	28459	-	-	-	-	-	-	-	-	-
	10.00	1.00	24236	-	21256	-	-	-	-	-	-	-
	10.00	1.50	24245	-	21265	-	-	-	-	-	-	-
	10.00	2.00	24111	19642	21131	41572	-	-	-	-	-	-

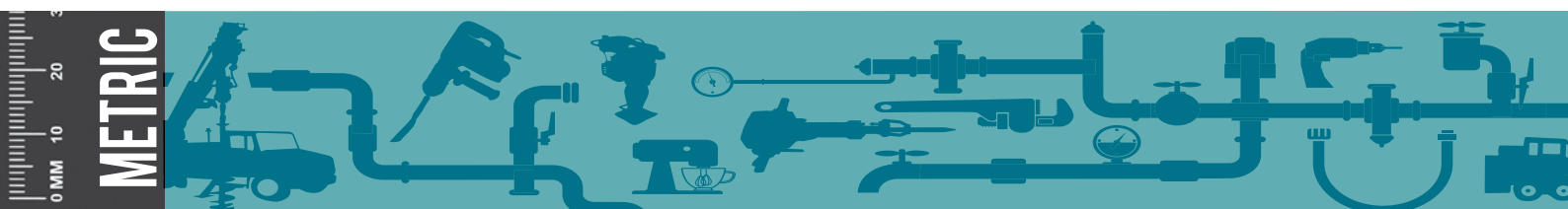
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	10.00	2.50	24278	-	21224	-	-	-	-	-	-	-
	10.00	3.00	24204	-	-	-	-	-	-	-	-	-
	10.00	3.50	44979	-	-	-	-	-	-	-	-	-
	10.00	4.00	24179	-		-	-	-	-	-	-	-
	10.10	1.60	24969	-	-	-	-	-	-	-	-	-
	10.30	2.40	-	-	22388	-	-	-	-	-	-	-
309	10.46	5.33	28276	28784	27766	37058	37477	-	47616	27257	43398	-
	10.50	1.50	40281	-	-	-	-	-	-	-	-	-
	10.50	2.00	25340	-	-	-	-	-	-	-	-	-
905	10.52	1.83	-	29065	-	-	-	-	-	-	-	-
205	10.69	3.53	28196	28704	27686	36978	37397	-	47536	27177	43361	-
111	10.77	2.62	28123	28632	27614	36906	37325	42054	47464	27105	37651	-
P11	10.80	2.40	25174	19971	-	-	-	-	-	-	-	22949
013	10.82	1.78	28076	28585	27567	36809	36859	42044	47412	27058	37634	-
	11.00	1.00	24361	-	-	-	-	-	-	-	-	-
	11.00	1.50	24364	-	-	-	-	-	-	-	-	-
	11.00	2.00	24112	19643	21132	41573	-	-	-	-	-	-
	11.00	2.50	24166	19647	21186	-	-	-	-	-	-	-
	11.00	3.00	24433	-	21453	-	-	-	-	-	-	-
	11.00	4.00	25097	-	-	-	-	-	-	-	-	-
	11.10	1.60	25182	-	-	-	-	-	-	-	-	-
806	11.10	1.78	28466	-	-	-	-	-	-	-	-	-
P11.2	11.20	2.40	25370	-	-	-	-	-	-	-	-	-
P12	11.80	2.40	24441	19972	-	-	-	-	-	-	-	22950
906	11.89	1.98	-	29066	-	-	-	-	-	-	-	-
614	11.91	2.62	28460	-	-	-	-	-	-	-	-	-
	12.00	1.00	24237	-	-	-	-	-	-	-	-	-
	12.00	1.50	24246	-	21266	-	-	-	-	-	-	-
	12.00	2.00	24113	19644	21133	42488	-	-	29548	-	-	-
	12.00	2.20	35061	-		-	-	-	-	-	-	-
	12.00	2.50	24116	-	-	-	-	-	-	-	-	-
	12.00	3.00	24310	-	21330	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	12.00	4.00	24157	-	-	-	-	-	-	-	-	-
	12.00	5.00	40318	-	-	-	-	-	-	-	-	-
310	**12.07**	5.33	28277	28785	27767	37059	37478	-	47617	27258	43399	-
	12.10	1.60	24970	-	-	-	-	-	-	-	-	-
206	**12.29**	3.53	28197	28705	27687	36979	37398	42068	47537	27178	43362	39956
112 [A]	**12.37**	2.62	28124	28633	27615	36907	37326	42055	47465	27106	37652	-
014	**12.42**	1.78	28077	28586	27568	36810	36860	42045	47152	27059	37635	-
P12.5	**12.60**	2.40	24348	-	-	-	-	-	-	-	-	22857
	12.60	2.40	25176	-	-	-	-	-	-	-	-	-
	13.00	1.00	24354	-	-	-	-	-	-	-	-	-
	13.00	1.50	24365	-	21385	-	-	-	-	-	-	-
	13.00	2.00	24358	19889	21378	-	-	-	-	-	-	-
	13.00	2.50	24288	-	-	-	-	-	-	-	-	-
	13.00	3.00	24303	-	21323	42483	-	-	-	-	-	-
	13.00	3.50	25335	-	-	-	-	-	-	-	-	-
	13.00	4.00	25098	-	-	-	-	-	-	-	-	-
	13.00	5.00	40319	-		-	-	-	-	-	-	-
615	**13.10**	2.62	28461	-	-	-	-	-	-	-	-	-
	13.10	1.60	25183	-	-	-	-	-	-	-	-	-
907	**13.46**	2.08	-	29067	-	-	-	-	-	-	-	-
	13.50	1.00	47902	-	-	-	-	-	-	-	-	-
P14	**13.60**	2.40	24442	19973	-	-	-	-	-	-	-	22951
	13.60	2.70	-	-	22393	-	-	-	-	-	-	-
311	**13.64**	5.33	28278	28786	27768	-	37479	-	47618	27259	43400	-
207	**13.87**	3.53	28198	28706	27688	36980	37399	-	47538	27179	43363	-
113	**13.94**	2.62	28125	28634	27616	36908	37327	42056	47466	27107	37653	-
	14.00	1.00	24238	-	-	-	-	-	-	-	-	-
	14.00	1.50	24363	-	-	-	-	-	-	-	-	-
015	**14.00**	1.78	28078	28587	27569	36811	36861	42046	47157	27060	37636	-
	14.00	2.00	24254	-	21274	41571	-	-	29547	-	-	-
	14.00	2.50	24117	19646	-	-	-	-	-	-	-	-
	14.00	3.00	24304	-	21324	-	47813	-	-	-	-	-

[A] Also available in V80 Encap. PTFE - Part number 42220

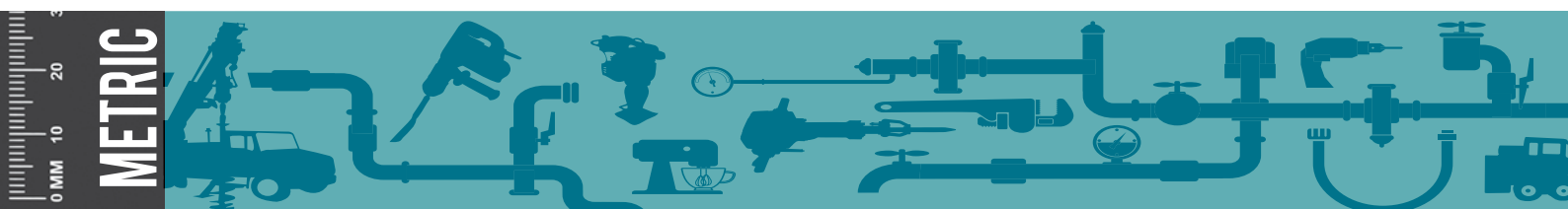
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	14.00	4.00	24180	-	-	-	-	-	-	-	-	-
	14.00	5.00	40320	-		-	-	-	-	-	-	-
	14.10	1.60	25184	-	-	-	-	-	-	-	-	-
	14.30	2.40	-	-	22394	-	-	-	-	-	-	-
P15	14.60	2.40	24443	19974	-	-	-	-	-	-	-	22952
	15.00	1.00	24239	-	-	-	-	-	-	-	-	-
	15.00	1.50	24247	-	21267	-	-	-	-	-	-	-
	15.00	2.00	24114	-	21134	-	-	-	-	-	-	-
	15.00	2.50	24118	-	21138	-	-	-	-	-	-	-
	15.00	3.00	24122	-	21142	-	-	-	-	-	-	-
	15.00	3.50	47137	-	-	-	-	-	-	-	-	-
	15.00	4.00	25099	-	-	-	-	-	-	-	-	-
	15.00	5.00	25263	-	-	-	-	-	-	-	-	-
616	15.08	2.62	28462	-	-	-	-	-	-	-	-	-
	15.10	1.60	25185	-	-	-	-	-	-	-	-	-
312	15.24	5.33	28279	28787	27769	37060	37480	-	47619	27260	43401	-
	15.30	2.40	24397	-	-	-	-	-	-	-	-	-
208	15.47	3.53	28199	28707	27689	36981	37400	-	47539	27180	43363	39957
	15.50	3.00	25336	-	-	-	-	-	-	-	-	-
114	15.54	2.62	28126	28635	27617	36909	37328	42057	47467	27108	37654	-
016	15.60	1.78	28079	28588	27570	36812	36862	42047	47415	27061	37637	-
P16	15.60	2.40	24444	20680	-	-	-	-	-	-	-	22953
809	15.88	2.62	28463	-	-	-	-	-	-	-	-	-
	16.00	1.00	24366	-	-	-	-	-	-	-	-	-
	16.00	1.50	24356	-	-	-	-	-	-	-	-	-
	16.00	2.00	24257	19788	21277	-	-	-	-	-	-	-
	16.00	2.50	24119	19645	21139	-	-	-	-	-	-	-
	16.00	3.00	24367	-	21387	-	-	-	-	-	-	-
	16.00	3.50	25112	-	-	-	-	-	-	-	-	-
	16.00	4.00	24181	-	-	-	-	-	-	-	-	-
	16.00	5.00	40321	-	-	-	-	-	-	-	-	-
	16.10	1.60	24971	-	-	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
908	**16.36**	2.20	-	29068	-	-	-	-	-	-	-	-
	16.50	2.50	40311	-	-	-	-	-	-	-	-	-
	16.60	2.40	25376	-	-	-	-	-	-	-	-	-
313	**16.81**	5.33	28280	28788	27770	37061	37481	-	47620	27261	43402	-
	17.00	1.00	25280	-	-	-	-	-	-	-	-	-
	17.00	1.20	34594	-	-	-	-	-	-	-	-	-
	17.00	1.50	24248	-	-	-	-	-	-	-	-	-
	17.00	2.00	24322	19853	21342	-	-	-	-	-	-	-
	17.00	2.50	24120	-	47205	-	-	-	-	-	-	-
	17.00	3.00	24282	-	-	-	-	-	-	-	-	-
	17.00	4.00	25100	-	-	-	-	-	-	-	-	-
209	**17.04**	3.53	28200	28708	27690	36982	37401	-	47540	27181	43364	-
	17.10	1.60	25186	-	-	-	-	-	-	-	-	-
115	**17.12**	2.62	28127	28636	27618	36910	37329	42058	47468	27109	37655	-
017	**17.17**	1.78	28080	28589	27571	36813	36863	42048	47416	27062	37638	-
	17.20	3.00	24401	40333	-	-	-	-	-	-	-	-
810	**17.45**	2.62	28493	-	-	-	-	-	-	-	-	-
	17.50	2.00	-	40333	-	-	-	-	-	-	-	-
P18	**17.60**	2.40	24445	20682	-	-	-	-	-	-	-	22954
617	**17.86**	2.62	28456	28977	-	-	-	-	-	-	-	-
909	**17.93**	2.46	-	29069	-	-	-	-	-	-	-	-
	18.00	1.00	24373	-	-	-	-	-	-	-	-	-
	18.00	1.50	24323	-	-	-	-	-	-	-	-	-
	18.00	2.00	24258	47013	21278	-	-	-	29546	-	-	-
	18.00	2.50	24283	-	-	-	-	-	-	-	-	-
	18.00	3.00	24124	-	21144	-	-	-	-	-	-	-
	18.00	3.50	24281	19648	-	-	-	-	-	-	-	-
	18.00	4.00	24182	-	-	-	-	-	-	-	-	-
	18.00	5.00	40323	-	-	-	-	-	-	-	-	-
	18.10	1.60	25187	-	-	-	-	-	-	-	-	-
314	**18.42**	5.33	28281	28789	27771	37062	37482	-	47621	27262	43403	-
	18.60	2.40	25152	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
210	**18.64**	3.53	28201	28709	27691	36983	37402	42069	47541	27182	36315	39958
116[A]	**18.72**	2.62	28128	28637	27619	36911	37330	42059	47469	27110	37656	-
018	**18.77**	1.78	28081	28590	27572	36814	36864	42049	47417	27063	37639	-
	19.00	1.00	25190	-	47028	-	-	-	-	-	-	-
	19.00	1.50	24249	-	-	-	-	-	-	-	-	-
	19.00	2.00	24371	-	21391	-	-	-	-	-	-	-
	19.00	2.50	24121	-	-	-	-	-	-	-	-	-
	19.00	3.00	24280	19811	-	-	-	-	-	-	-	-
	19.00	3.50	25337	-	-	-	-	-	-	-	-	-
	19.00	4.00	24438	-	-	-	-	-	-	-	-	-
	19.00	5.00	40324	-	-	-	-	-	-	-	-	-
	19.00	6.00	24152	-	-	-	-	-	-	-	-	-
	19.10	1.60	25188	-	-	-	-	-	-	-	-	-
910	**19.18**	2.46	28423	29070	28052	-	-	-	-	-	-	-
	19.50	3.00	25527		-	-	-	-	-	-	-	-
P20	**19.60**	2.40	24972	20503	-	41542	-	-	-	-	-	22955
315	**19.99**	5.33	28282	28790	27772	37063	37483	-	47622	27263	43404	-
	20.00	1.00	25191	-	-	-	-	-	-	-	-	-
	20.00	1.50	24279	-	21299	-	-	-	-	-	-	-
	20.00	2.00	24259	41895	21279	-	-	-	-	-	-	-
	20.00	2.50	24284	-	21304	-	-	-	-	-	-	-
	20.00	3.00	24125	-	21145	-	-	-	-	-	-	-
	20.00	3.50	24256	-	-	-	-	-	-	-	-	-
	20.00	4.00	24275	-	-	-	-	-	-	-	-	-
	20.00	5.00	24255	-	-	-	-	-	-	-	-	-
	20.00	6.00	24097	-	-	-	-	-	-	-	-	-
	20.00	8.00	41723	-	-	-	-	-	-	-	-	-
	20.20	3.00	25281	-	-	-	-	-	-	-	-	-
211	**20.22**	3.53	28202	28710	27692	36984	37403	42070	47542	27183	36316	-
117[B]	**20.30**	2.62	28129	28638	27620	36912	37331	42060	47470	27111	37657	-
019	**20.35**	1.78	28082	28591	27573	36815	36865	-	47418	27064	37640	-
P21	**20.60**	2.40	25454	-	-	-	-	-	-	-	-	22956

[A] Also available in V80 Encap. PTFE - Part number 42211
[B] Also available in V80 Encap. PTFE - Part number 42173

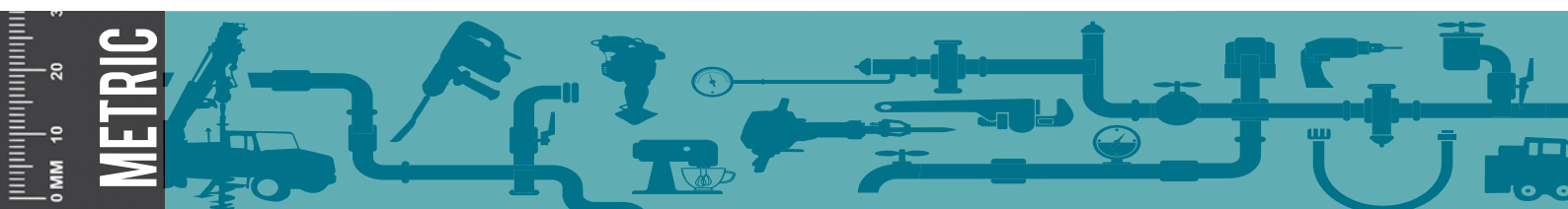


DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
812	20.64	2.62	28489	-	-	-	-	-	-	-	-	-
	20.80	2.40	24447	-	-	-	-	-	-	-	-	-
	21.00	1.50	24250	-	21270	-	-	-	-	-	-	-
	21.00	2.00	24372	-	-	-	-	-	-	-	-	-
	21.00	2.50	25300	20831	-	-	-	-	-	-	-	-
	21.00	3.00	24242	-	-	-	-	-	-	-	-	-
	21.00	3.50	25338	-	-	-	-	-	-	-	-	-
	21.00	4.00	25528	-	-	-	-	-	-	-	-	-
	21.00	5.00	40325	-	-	-	-	-	-	-	-	-
	21.50	3.00	34593	-	33802	-	-	-	-	-	-	-
316	21.59	5.33	28283	28791	27773	37064	37484	-	47623	27264	43405	-
P22A	21.70	3.50	24528	20059	-	-	-	-	-	-	-	23037
P22	21.80	2.40	25153	19979	-	-	-	-	-	-	-	22957
212	21.82	3.53	28203	28711	27693	36985	37404	-	47543	27184	36317	39959
118[A]	21.89	2.62	28130	28639	27621	36913	37332	42061	47155	27112	37658	-
911	21.92	2.95	-	29071	-	-	-	-	-	-	-	-
020	21.95	1.78	28083	28592	27574	36816	36866	42050	47419	27065	37641	-
	22.00	1.00	35057	-	-	-	-	-	-	-	-	-
	22.00	1.50	24370	-	-	-	-	-	-	-	-	-
	22.00	2.00	24260	-	21280	43231	-	-	29550	-	-	-
	22.00	2.50	24285	-	-	-	-	-	-	-	-	-
	22.00	3.00	24126	-	21146	-	-	-	-	-	-	-
	22.00	4.00	24183	-	-	-	-	-	-	-	-	-
	22.10	1.60	25189	-	-	-	-	-	-	-	-	-
P22.4	22.10	3.50	24529	-	-	-	-	-	-	-	-	23038
813	22.22	2.62	28457	-	-	-	-	-	-	-	-	-
	22.50	2.50	35067	-	-	-	-	-	-	-	-	-
	22.50	3.00	25282	-	-	-	-	-	-	-	-	-
	22.60	2.40	24343	-	-	-	-	-	-	-	-	-
	23.00	1.00	34418	-	-	-	-	-	-	-	-	-
	23.00	1.50	24324	-	-	-	-	-	-	-	-	-
	23.00	2.00	24368	19899	21388	-	-	-	-	-	-	-

[A]Also available in SIL Encap. PTFE - Part number 42221

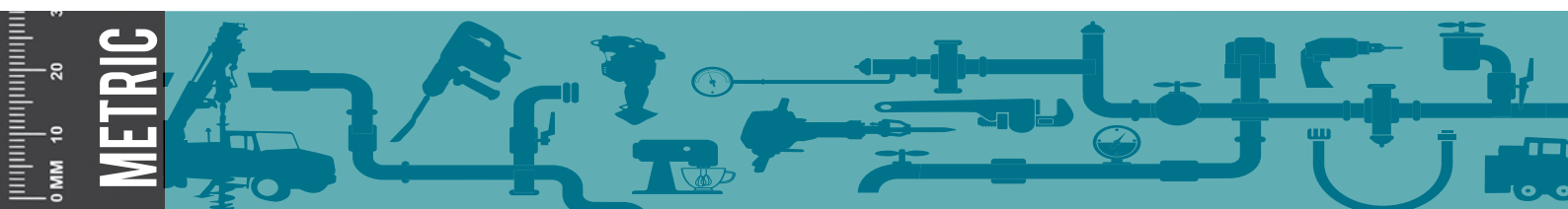
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	23.00	2.50	24426	-	-	-	-	-	-	-	-	-
	23.00	3.00	25325	-	-	-	-	-	-	-	-	-
	23.00	3.50	24224	-	-	-	-	-	-	-	-	-
	23.00	4.00	25101	-	-	-	-	-	-	-	-	-
317	**23.16**	5.33	28284	28792	27774	37065	37485	-	47624	27265	43406	-
213	**23.39**	3.53	28204	28712	27694	36986	37405	42071	47544	27185	36318	-
912	**23.47**	2.95	-	29072	-	-	-	-	-	-	-	-
119	**23.47**	2.62	28131	28640	27622	36914	37333	42062	47472	27113	37659	-
021	**23.52**	1.78	28084	28593	27575	36817	36867	-	47420	27066	37642	-
	23.60	2.40	24340	-	-	-	-	-	-	-	-	-
P24	**23.70**	3.50	24530	20061	-	-	-	-	-	-	-	23039
814	**23.81**	2.62	28458	-	-	-	-	-	-	-	-	-
	24.00	1.00	35056	-	-	-	-	-	-	-	-	-
	24.00	1.50	24325	-	-	-	-	-	-	-	-	-
	24.00	2.00	24369	-	21389	42164	-	-	-	-	-	-
	24.00	2.50	24222	-	-	-	-	-	-	-	-	-
	24.00	3.00	24127	-	21147	-	-	-	-	-	-	-
	24.00	4.00	24184	-	-	-	-	-	-	-	-	-
	24.10	1.60	24312	-	-	-	-	-	-	-	-	-
G25	**24.40**	3.10	24502	20033	-	-	-	-	-	-	-	23011
	24.50	1.50	41865	-	-	-	-	-	-	-	-	-
	24.50	2.50	40334	-	-	-	-	-	-	-	-	-
	24.60	2.40	25154	-	22405	-	-	-	-	-	-	-
P25	**24.70**	3.50	24531	20062	-	-	-	-	-	-	-	23040
318	**24.77**	5.33	28285	28793	27775	37066	37486	-	47625	27266	-	-
	25.00	1.00	34838	-	-	-	-	-	-	-	-	-
	25.00	1.50	24251	-	-	-	-	-	-	-	-	-
	25.00	2.00	24261	19792	21281	-	22622	-	29551	-	-	-
	25.00	2.50	25157	-	-	-	-	-	-	-	-	-
	25.00	3.00	24129	-	-	-	-	-	29545	-	-	-
	25.00	3.50	-	19649	-	-	-	-	-	-	-	-
214[A]	**25.00**	3.53	28205	28713	27695	36987	37406	-	47545	27186	36319	39960

[A] Also available in SIL Encap. PTFE - Part number 42222



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	25.00	5.00	25264	-	-	-	-	-	-	-	-	-
	25.00	6.00	47088	-	-	-	-	-	-	-	-	-
	25.00	7.00	24413	-	-	-	-	-	-	-	-	-
913	**25.04**	2.95	-	29073	-	-	-	-	-	-	-	-
120	**25.07**	2.62	28132	28641	27623	36915	37334	42063	47473	27114	37660	-
	25.10	1.60	24313	-	-	-	-	-	-	-	-	-
022	**25.12**	1.78	28085	28594	27576	36818	36868	42051	47421	27067	37643	-
	25.20	2.50	35068	-	-	-	-	-	-	-	-	-
P25.5	**25.20**	3.50	24532	20063	-	-	-	-	-	-	-	23041
	25.50	2.00	40335	-	-	-	-	-	-	-	-	-
	25.50	3.00	25130	-	-	-	-	-	-	-	-	-
	25.60	2.40	25386	-	-	-	-	-	-	-	-	-
P26	**25.70**	3.50	24449	19980	-	-	-	-	-	-	-	22958
618	**25.80**	3.53	28558	-	-	-	-	-	-	-	-	-
	26.00	1.00	34419	-	-	-	-	-	-	-	-	-
	26.00	1.50	24332	-	-	-	-	-	-	-	-	-
	26.00	2.00	24262	-	21282	-	-	-	-	-	-	-
	26.00	2.50	24286		-	-	-	-	-	-	-	-
	26.00	2.50	-	36314	-	-	-	-	-	-	-	-
	26.00	3.00	24162	-	21182	-	-	-	-	-	-	-
	26.00	3.50	24158	-	-	-	-	-	-	-	-	-
	26.00	4.00	25529	-		-	-	-	-	-	-	-
	26.00	7.00	-	-	35119	-	-	-	-	-	-	-
	26.30	2.40	-	36313	-	-	-	-	-	-	-	-
319	**26.34**	5.33	28286	28794	27776	37067	37487	-	47626	27267	43408	-
	26.50	3.00	25283	-	-	-	-	-	-	-	-	-
215	**26.57**	3.53	28206	28714	27696	36988	37407	-	47546	27187	36320	-
914	**26.59**	2.95	-	29074	28056	-	-	-	-	-	-	-
	26.60	2.40	35066	-	-	-	-	-	-	-	-	-
121	**26.64**	2.62	28133	28642	27624	36916	37335	42064	47474	27115	37661	-
023	**26.70**	1.78	28086	28595	27577	36819	36869	42052	47422	27068	37644	-
	27.00	1.00	34425	-	-	-	-	-	-	-	-	-

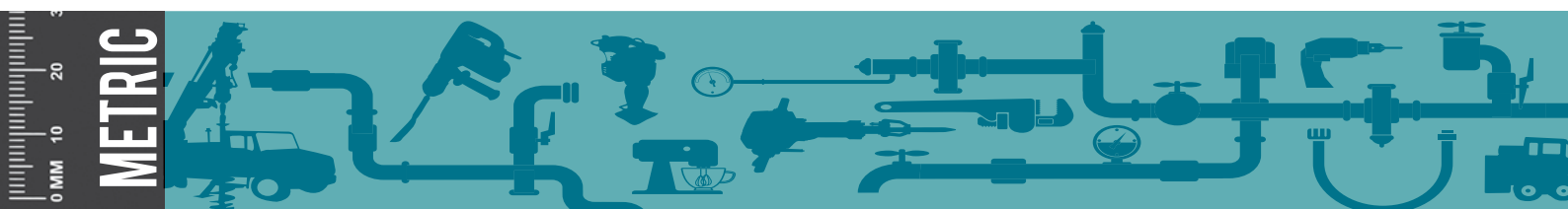
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	27.00	1.50	24252	-	-	-	-	-	-	-	-	-
	27.00	2.00	24380	-	21400	-	-	-	-	-	-	-
	27.00	2.50	25158	-	-	-	-	-	-	-	-	-
	27.00	3.00	24211	-	21231	-	-	-	-	-	-	-
	27.00	3.50	24217	-	-	-	-	-	-	-	-	-
	27.00	4.00	24132	-	-	-	-	-	-	-	-	-
	27.00	6.00	35916	-	-	-	-	-	-	-	-	-
	27.10	1.60	25388	-	-	-	-	-	-	-	-	-
	27.50	3.00	37742	-	-	-	-	-	-	-	-	-
	27.60	2.40	25389	-	22175	-	-	-	-	-	-	-
P28	27.70	3.50	24450	19981	-	-	-	-	-	-	-	22959
320	27.94	5.33	28287	28795	27777	37068	37488	-	47627	27268	43409	-
	28.00	1.00	34420	-	-	-	-	-	-	-	-	-
	28.00	1.50	24329	-	-	-	-	-	-	-	-	-
	28.00	2.00	24263	43067	21283	-	-	-	-	-	-	-
	28.00	2.50	25159	20690	22179	-	-	-	-	-	-	-
	28.00	3.00	24130	-	21150	-	-	-	-	-	-	-
	28.00	3.50	24215	19650	-	-	-	-	-	-	-	-
	28.00	4.00	24156	-	-	-	-	-	-	-	-	-
216	28.17	3.53	28207	28715	27697	36989	37408	42072	47547	27188	36321	-
122	28.24	2.62	28134	28643	27625	36917	37336	42065	47475	27116	37662	-
024	28.30	1.78	28087	28596	27578	36820	36870	-	47154	27069	37645	-
	28.50	3.00	25289	-	-	-	-	-	-	-	-	-
P29	28.70	3.50	24533	20064	-	-	-	-	-	-	-	23042
	29.00	1.00	34421	-	-	-	-	-	-	-	-	-
	29.00	1.50	24331	-	-	-	-	-	-	-	-	-
	29.00	2.00	24378	-	-	-	-	-	-	-	-	-
	29.00	2.50	25285	-	-	-	-	-	-	-	-	-
	29.00	3.00	24165	-	21185	-	-	-	-	-	-	-
	29.00	4.00	25490	-	-	-	-	-	-	-	-	-
	29.10	1.60	25391	-	-	-	-	-	-	-	-	-
P29.5	29.20	3.50	24534	-	-	-	-	-	-	-	-	23043



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	29.30	5.00	25466	-	-	-	-	-	-	-	-	-
	29.30	5.70	24100	-	-	-	-	-	-	-	-	-
G30	**29.40**	3.10	24503	20034	-	-	-	-	-	-	-	23012
321	**29.51**	5.33	28288	28796	27778	37069	37489	-	47628	27269	43410	-
	29.60	2.40	37725	-	33801	-	-	-	-	-	-	-
P30	**29.70**	3.50	24535	20066	-	41543	-	-	-	-	-	23044
217	**29.74**	3.53	28208	28716	27698	36990	37409	-	47548	27189	36322	-
916	**29.74**	2.95	-	29076	-	-	-	-	-	-	-	-
123	**29.82**	2.62	28135	28644	27626	36918	37337	42066	47476	27117	37663	-
025	**29.87**	1.78	28088	28597	27579	36821	36871	-	47424	27070	37646	-
	30.00	1.00	25455	-	-	-	-	-	-	-	-	-
	30.00	1.50	24253	-	-	-	-	-	-	-	-	-
	30.00	2.00	24264	-	21284	-	-	-	-	-	-	-
	30.00	2.50	24287	-	-	-	-	-	-	-	-	-
	30.00	3.00	24213	-	21233	-	-	-	29533	-	-	-
	30.00	4.00	24155	19686	-	-	-	-	-	-	-	-
	30.00	5.00	25266	-	21225	-	-	-	-	-	-	-
	30.00	6.00	33774	-	-	-	-	-	-	-	-	-
	30.20	3.00	25132	-	-	-	-	-	-	-	-	-
	30.60	2.40	24341	-	-	-	-	-	-	-	-	-
P31	**30.70**	3.50	-	20067	-	-	-	-	-	-	-	23045
	31.00	1.00	35055	-	-	-	-	-	-	-	-	-
	31.00	1.50	24337	-	25392	-	-	-	-	-	-	-
	31.00	2.00	24375	-	-	-	-	-	-	-	-	-
	31.00	2.50	25284	-	-	-	-	-	-	-	-	-
	31.00	3.00	24410	-	-	-	-	-	-	-	-	-
	31.00	4.00	25214	-	-	-	-	-	-	-	-	-
322	**31.12**	5.33	28289	28797	27779	37070	37490	-	47629	27270	43411	-
P31.5	**31.20**	3.50	24537	-	-	-	-	-	-	-	-	23046
218	**31.34**	3.53	28209	28717	27699	36991	37410	42073	47549	27190	36323	39961
G32	**31.40**	3.10	25481	-	-	-	-	-	-	-	-	-
124[A]	**31.42**	2.62	28136	28645	27627	36919	37338	42067	47477	27118	37664	-

[A] Also available in V80 Encap. PTFE - Part number 42105

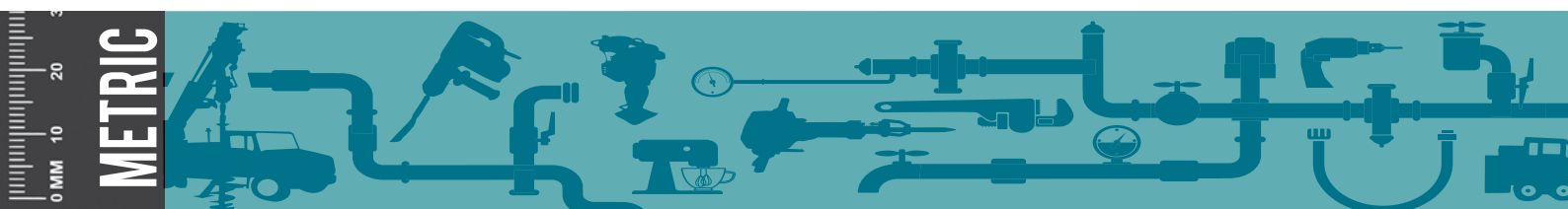
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
026	**31.47**	1.78	28089	28598	27580	36822	36872	-	47424	27071	37647	-
	31.60	2.40	37726	-	-	-	-	-	-	-	-	-
P32	**31.70**	3.50	24451	19982	-	41544	-	-	-	-	-	22960
	32.00	1.00	34422	-	-	-	-	-	-	-	-	-
	32.00	1.20	24481	-	-	-	-	-	-	-	-	-
	32.00	1.50	25505	-	-	-	-	-	-	-	-	-
	32.00	2.00	24265	-	21285	-	-	-	29556	-	-	-
	32.00	2.50	25311	-	-	-	-	-	-	-	-	-
	32.00	3.00	24214	-	21234	-	-	-	-	-	-	-
	32.00	3.50	24134	-	-	-	-	-	-	-	-	-
	32.00	4.00	25215	-	22235	-	-	-	-	-	-	-
	32.00	5.00	40342	-	-	-	-	-	-	-	-	-
	32.00	6.00	33775	-	-	-	-	-	-	-	-	-
	32.10	1.60	25394	-	34387	-	-	-	-	-	-	-
	32.50	3.00	25287	-	-	-	-	-	-	-	-	-
323	**32.69**	5.33	28290	28798	27780	37071	37491	-	47630	27271	43412	-
219	**32.92**	3.53	28210	28718	27700	36992	37411	42074	47550	27191	36332	-
125	**32.99**	2.62	28137	28646	27628	36920	37339	-	47478	27119	37665	-
	33.00	1.00	34426	-	-	-	-	-	-	-	-	-
	33.00	1.50	24334	-	-	-	-	-	-	-	-	-
	33.00	2.00	24427	-	21447	-	-	-	-	-	-	-
	33.00	2.50	25160	-	-	-	-	-	-	-	-	-
	33.00	3.00	24434	-	-	-	-	-	-	-	-	-
	33.00	3.50	24135	-	-	-	-	-	-	-	-	-
	33.00	4.00	25532	-	-	-	-	-	-	-	-	-
	33.00	6.00	36173	-	-	-	-	-	-	-	-	-
027	**33.05**	1.78	28090	28599	27581	36823	36873	-	47426	27072	37648	-
	33.60	2.40	24342	-	-	-	-	-	-	-	-	-
P34	33.70	3.50	24538	20069	-	-	-	-	-	-	23047	-
	34.00	1.00	34423	-	-	-	-	-	-	-	-	-
	34.00	1.50	24330	-	-	-	-	-	-	-	-	-
	34.00	2.00	24150	19681	21170	-	-	-	29552	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	34.00	2.50	24289	-	47215	-	-	-	-	-	-	-
	34.00	3.00	24137	-	21157	-	-	-	-	-	-	-
	34.00	3.50	25113	-	22133	-	-	-	-	-	-	-
	34.00	4.00	24187	-	21207	-	-	-	-	-	-	-
	34.00	6.00	25531	-	-	-	-	-	-	-	-	-
324	**34.29**	5.33	28291	28799	27781	37072	37492	-	47631	27272	47413	39962
400	**34.29**	6.99	47181	-	-	20206	-	-	47703	-	-	-
G35	**34.40**	3.10	24504	20035	-	-	-	-	-	-	-	23013
918	**34.42**	2.95	-	29077	-	-	-	-	-	-	-	-
220	**34.52**	3.53	28211	28719	27701	36993	37412	42075	47551	27192	36333	-
126	**34.59**	2.62	28138	28647	27629	36921	37340	-	47479	27120	37666	-
	34.60	2.40	37727	-	-	-	-	-	-	-	-	-
028	**34.65**	1.78	28091	28600	27582	36824	36874	-	47427	27073	37649	-
P35	**34.70**	3.50	24539	20070	-	-	-	-	-	-	-	23048
	35.00	1.00	25462	-	-	-	-	-	-	-	-	-
	35.00	1.50	25192	-	-	-	-	-	-	-	-	-
	35.00	2.00	24266	19797	21286	-	-	-	-	-	-	-
	35.00	2.50	25137	-	22157	-	-	-	-	-	-	-
	35.00	3.00	24306	19682	-	-	-	-	-	-	-	-
	35.00	3.50	24136	-	-	-	-	-	-	-	-	-
	35.00	4.00	25216	-	-	-	-	-	-	-	-	-
	35.00	5.00	24385	-	-	-	-	-	-	-	-	-
	35.10	1.60	25399	-	-	-	-	-	-	-	-	-
P35.5	**35.20**	3.50	24540	20071	-	-	-	-	-	-	-	23049
	35.20	5.70	37749	-	-	-	-	-	-	-	-	-
	35.50	3.00	37743	-	-	-	-	-	-	-	-	-
	35.60	2.40	37728	-	-	-	-	-	-	-	-	-
P36	**35.70**	3.50	24541	20072	-	-	-	-	-	-	-	23050
	36.00	1.00	35059	-	-	-	-	-	-	-	-	-
	36.00	1.50	24336	-	-	-	-	-	-	-	-	-
	36.00	2.00	24267	-	21287	-	-	-	-	-	-	-
	36.00	2.50	24290	-	-	-	-	-	-	-	-	-

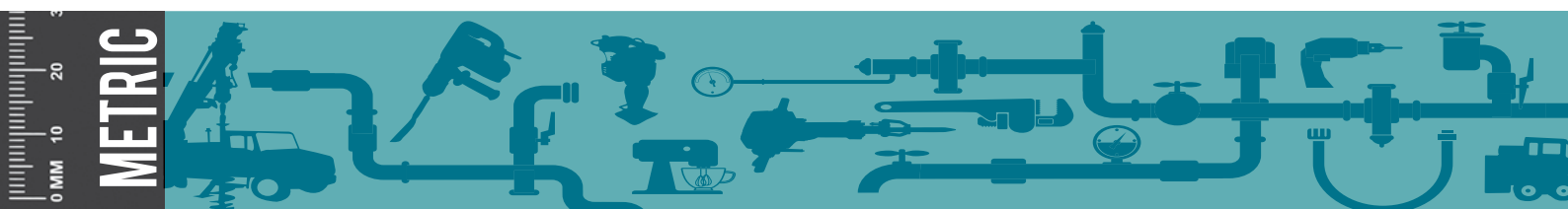
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	36.00	3.00	24216	-	21236	-	-	-	29509	-	-	-
	36.00	3.50	25114	-	22134	-	-	-	-	-	-	-
	36.00	4.00	24188	-	-	43087	-	-	-	-	-	-
	36.00	5.00	40343	-	-	-	-	-	-	-	-	-
221[A]	**36.09**	3.53	28212	28720	27702	36994	37413	42076	47552	27193	36334	-
127	**36.17**	2.62	28139	28648	27630	36922	37341	-	47480	27121	37667	-
	36.20	5.70	37750	-	-	-	-	-	-	-	-	-
517	**36.27**	1.78	28467	28947	27929	-	-	-	-	-	-	-
	36.50	3.00	25286	-	-	-	-	-	-	-	-	-
	37.00	1.50	24333	-	-	-	-	-	-	-	-	-
	37.00	2.00	24377	-	21397	-	-	-	-	-	-	-
	37.00	2.50	24374	-	-	-	-	-	-	-	-	-
	37.00	3.00	24411	-	21431	-	-	-	-	-	-	-
	37.00	3.50	24212	-	-	-	-	-	-	-	-	-
	37.00	4.00	25491	-	-	-	-	-	-	-	-	-
	37.00	5.00	24379	-	-	-	-	-	-	-	-	-
	37.00	6.00	24344	-	-	-	-	-	-	-	-	-
	37.10	1.60	24973	-	-	-	-	-	-	-	-	-
	37.20	5.70	37751	-	-	-	-	-	-	-	-	-
G38	**37.40**	3.10	25486	-	-	-	-	-	-	-	-	23995
920	**37.47**	3.00	-	29078	-	-	-	-	-	-	-	-
325	**37.47**	5.33	28292	28800	27782	37073	37493	-	47632	27273	37681	39963
401	**37.47**	6.99	47180	-	-	20207	-	-	47704	-	-	-
	37.50	7.00	24414	-	-	-	-	-	-	-	-	-
	37.60	2.40	37729	-	-	-	-	-	-	-	-	-
222	**37.69**	3.53	28213	28721	27703	36995	37414	42077	47553	27194	36335	-
P38	**37.70**	3.50	24542	20073	-	-	-	-	-	-	-	23051
128	**37.77**	2.62	28140	28649	27631	36923	37342	-	47481	27122	37668	-
029	**37.82**	1.78	28092	28601	27583	36825	36875	-	47428	27074	43301	-
	38.00	1.00	25461	-	-	-	-	-	-	-	-	-
	38.00	1.50	24335	-	-	-	-	-	-	-	-	-
	38.00	2.00	24376	-	21396	-	-	-	-	-	-	-

[A] Also available in V80 Encap. PTFE - Part number 42203



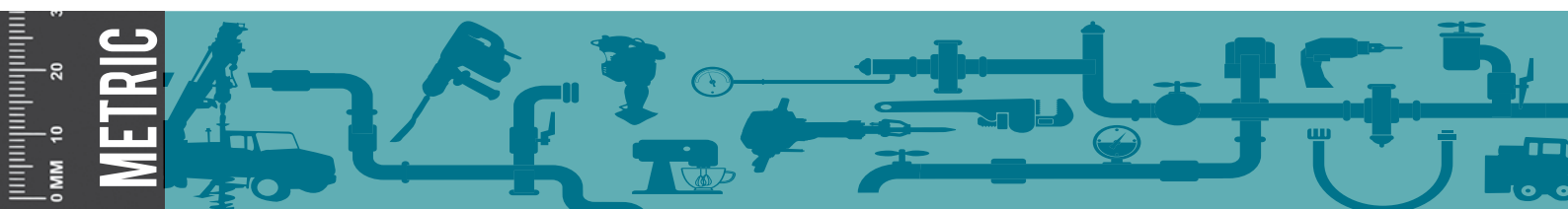
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	38.00	2.50	24428	-	-	-	-	-	-	-	-	-
	38.00	3.00	24139	-	21159	-	-	-	-	-	-	-
	38.00	4.00	24189	-	-	-	-	-	-	-	-	-
	38.00	5.00	25460	-		-	-	-	-	-	-	-
	38.00	7.00	-	-	33803	-	-	-	-	-	-	-
P39	**38.70**	3.50	24543	20074	-	-	-	-	-	-	-	23052
	39.00	1.00	34424	-	-	-	-	-	-	-	-	-
	39.00	1.50	24338	-	-	-	-	-	-	-	-	-
	39.00	2.00	24383	-	-	-	-	-	-	-	-	-
	39.00	2.50	25312	-	-	-	-	-	-	-	-	-
	39.00	3.00	24159	-	-	-	-	-	-	-	-	-
	39.00	3.50	25115	-	-	-	-	-	-	-	-	-
	39.00	4.00	33773	-	-	-	-	-	-	-	-	-
	39.20	5.70	24101	-		-	-	-	-	-	-	-
	39.30	5.70	-	-	21121	-	-	-	-	-	-	-
129	**39.34**	2.62	28141	28650	27632	36924	37343	-	47482	27123	37669	-
G40	**39.40**	3.10	24505	20036	-	-	-	-	-	-	-	22961
	39.60	2.40	37730	-	-	-	-	-	-	-	-	-
824	**39.69**	3.53	28453	-	-	-	-	-	-	-	-	-
P40	**39.70**	3.50	24452	19983	-	-	-	-	-	-	-	23036
	40.00	1.00	25456	-	-	-	-	-	-	-	-	-
	40.00	1.50	24326	-	-	-	-	-	-	-	-	-
	40.00	2.00	24268	-	21288	-	-	-	-	-	-	-
	40.00	2.50	24291	-	21311	-	-	-	-	-	-	-
	40.00	3.00	24140	-	21160	-	-	-	29553	-	-	-
	40.00	3.50	24154	-	-	-	-	-	-	-	-	-
	40.00	4.00	24170	-	21190	-	-	-	-	-	-	-
	40.00	5.00	24209	-	21229	-	-	-	29530	-	-	-
	40.00	6.50	36099	-	-	-	-	-	-	-	-	-
326	**40.64**	5.33	28293	28801	27783	37074	37494	42088	47633	27274	37682	39964
402	**40.64**	6.99	47178	-	-	20208	-	-	47705	-	-	-
P41	**40.70**	3.50	24544	20075	-	-	-	-	-	-	-	23053

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
223	**40.87**	3.53	28214	28722	27704	36996	37415	42078	47554	27195	36336	-
130	**40.94**	2.62	28142	28651	27633	36925	37344	-	47483	27124	37670	-
030	**41.00**	1.78	28093	28602	27584	36826	36876	-	47429	27075	43302	-
	41.00	2.00	25179	-	-	-	-	-	-	-	-	-
	41.00	2.50	25313	-	21163	-	-	-	-	-	-	-
	41.00	3.00	24164	-	-	-	-	-	-	-	-	-
	41.00	4.00	24168	-	-	-	-	-	-	-	-	-
	41.20	5.70	37752	-	-	-	-	-	-	-	-	-
825	**41.28**	3.53	28494	-	-	-	-	-	-	-	-	-
	41.50	3.00	37744	-	-	-	-	-	-	-	-	-
	41.60	2.40	25290	-	22310	-	-	-	-	-	-	-
P42	**41.70**	3.50	24453	19984	-	-	-	-	-	-	-	22962
	42.00	1.00	24482	-	-	-	-	-	-	-	-	-
	42.00	1.50	-	-	36064	-	-	-	-	-	-	-
	42.00	2.00	24269	-	-	-	-	-	-	-	-	-
	42.00	2.50	24208	-	-	-	-	-	-	-	-	-
	42.00	3.00	24141	-	21161	-	-	-	29534	-	-	-
	42.00	4.00	24169	-	-	-	-	-	-	-	-	-
	42.00	5.00	25267	-	-	-	-	-	-	-	-	-
	42.50	3.00	25403	-	-	-	-	-	-	-	-	-
131	**42.52**	2.62	28143	28652	27634	36926	37345	-	47484	27125	37671	-
826	**42.86**	3.53	28454	-	-	-	-	-	-	-	-	47884
	43.00	2.00	24389	-	42792	-	-	-	-	-	-	-
	43.00	2.50	25140	-	42791	-	-	-	-	-	-	-
	43.00	3.00	25134	20665	-	-	-	-	-	-	-	-
	43.00	4.00	25482	-	-	-	-	-	-	-	-	-
	43.00	5.00	40344	-	-	-	-	-	-	-	-	-
924	**43.69**	3.00	-	29079	-	-	-	-	-	-	-	-
P44	**43.70**	3.50	24545	20076	-	-	-	-	-	-	-	23054
327	**43.82**	5.33	28294	28802	27784	37075	37495	42089	47634	27275	37683	39965
403	**43.82**	6.99	47178	-	-	20209	-	-	47706	-	-	-
	44.00	1.00	36185	-	-	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	44.00	2.00	24381	-	-	-	-	-	-	-	-	-
	44.00	2.50	25314	-	-	-	-	-	-	-	-	-
	44.00	3.00	24219	19750	21239	-	-	-	-	-	-	-
	44.00	4.00	24388	-	-	-	-	-	-	-	-	-
224	**44.04**	3.53	28215	28723	27705	36997	37416	42079	47555	27196	36337	-
132	**44.12**	2.62	28144	28653	27635	36927	37346	-	47485	27126	37672	-
031	**44.17**	1.78	28094	28603	27585	36827	36877	-	47430	27076	43303	-
	44.30	5.70	25260	-	22311	-	-	-	-	-	-	-
G45	**44.40**	3.10	24506	20037	-	-	-	-	-	-	-	23015
	44.50	7.00	24415	-	-	-	-	-	-	-	-	-
	44.60	2.40	24974	-	-	-	-	-	-	-	-	-
	44.60	7.00	24353	-	-	-	-	-	-	-	-	-
P45	**44.70**	3.50	24454	19985	-	-	-	-	-	-	-	22963
	45.00	1.50	41722	-	-	-	-	-	-	-	-	-
	45.00	2.00	24386	-	21406	-	-	-	-	-	-	-
	45.00	2.50	24429	19960	-	-	-	-	-	-	-	-
	45.00	3.00	24220	-	21240	-	-	-	29554	-	-	-
	45.00	3.50	25116	-	22136	-	-	-	-	-	-	-
	45.00	4.00	25217	-	22237	-	-	-	-	-	-	-
	45.00	5.00	24384	-	-	-	-	-	29508	-	-	-
	45.00	6.00	25228	-	-	-	-	-	-	-	-	-
	45.30	5.70	37754	-	-	-	-	-	-	-	-	-
	45.60	2.40	37731	-	-	-	-	-	-	-	-	-
133	**45.69**	2.62	28145	28654	27636	36928	37347	-	47486	27127	37673	-
P46	**45.70**	3.50	24546	20077	-	-	-	-	-	-	-	23055
	46.00	2.00	24270	-	-	-	-	-	-	-	-	-
	46.00	2.50	25293	-	-	-	-	-	-	-	-	-
	46.00	3.00	24430	-	21450	-	-	-	-	-	-	-
	46.00	4.00	24191	-	-	-	-	-	-	-	-	-
	46.00	5.00	40345	-	-	-	-	-	-	-	-	-
828	**46.04**	3.53	28487	-	-	-	-	-	-	-	-	47885
328	**46.99**	5.33	28295	28803	27785	37076	37496	42090	47635	27276	37684	-

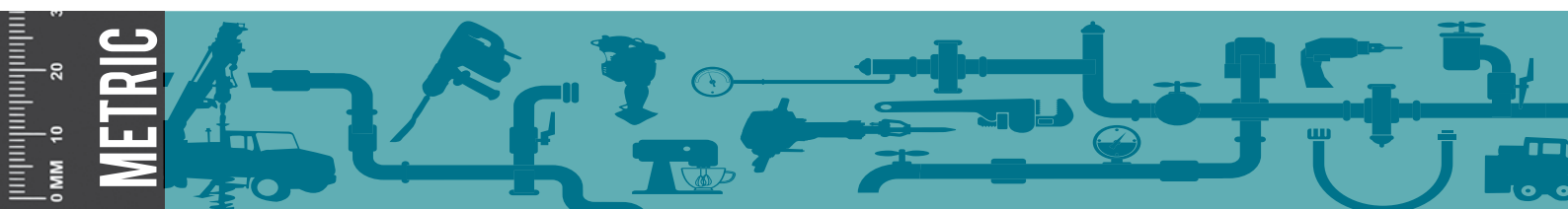
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
404	**46.99**	6.99	47177	-	-	20210	-	-	47707	-	-	-
	47.00	2.00	24387	-	-	-	-	-	-	-	-	-
	47.00	2.50	25321	-	-	-	-	-	-	-	-	-
	47.00	3.00	25135	-	-	-	-	-	-	-	-	-
	47.00	4.00	25534	-	-	-	-	-	-	-	-	-
225	**47.22**	3.53	28216	28724	27706	36998	37417	42080	47556	27197	36338	-
134	**47.30**	2.62	28146	28655	27637	36929	37348	-	47487	27128	37674	-
P48A	**47.30**	5.70	24456	-	-	-	-	-	-	-	-	22965
032	**47.35**	1.78	28095	28604	27586	36828	36878	-	47431	27077	-	-
	47.60	2.40	37732	-	-	-	-	-	-	-	-	-
829	**47.62**	3.53	28455	-	-	-	-	-	-	-	-	-
P48	**47.70**	3.50	24547	20078	-	-	-	-	-	-	-	23056
	48.00	2.00	24382	-	21402	-	-	-	-	-	-	-
	48.00	2.50	24292	-	-	-	-	-	-	-	-	-
	48.00	3.00	24221	-	21241	-	-	-	-	-	-	-
	48.00	3.50	25093	-	-	-	-	-	-	-	-	-
	48.00	4.00	25218	-	-	-	-	-	-	-	-	-
	48.00	5.00	25268	-	-	-	-	-	-	-	-	-
	48.00	6.00	25229	-	-	-	-	-	-	-	-	-
	48.60	7.00	24416	-	-	-	-	-	-	-	-	-
P49	**48.70**	3.50	24455	19986	-	-	-	-	-	-	-	22964
135	**48.90**	2.62	28147	28656	27638	36930	37349	-	47488	27129	37675	-
	49.00	1.00	25537	-	-	-	-	-	-	-	-	-
	49.00	2.00	25279	-	-	-	-	-	-	-	-	-
	49.00	2.50	25322	-	-	-	-	-	-	-	-	-
	49.00	3.00	24207	-	-	-	-	-	-	-	-	-
	49.00	4.00	25535	-	-	-	-	-	-	-	-	-
830	**49.20**	3.53	28496	-	-	-	-	-	-	-	-	47886
P50A	**49.30**	5.70	24099	-	-	-	-	-	-	-	-	22987
G50	**49.40**	3.10	24507	20038	-	-	-	-	-	-	-	23016
	49.60	2.40	37733	-	-	-	-	-	-	-	-	-
P50	**49.70**	3.50	24548	20079	-	-	-	-	-	-	-	23057



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	50.00	1.00	35060	-	-	-	-	-	-	-	-	-
	50.00	1.50	34639	-	-	-	-	-	-	-	-	-
	50.00	2.00	24271	-	-	-	-	-	-	-	-	-
	50.00	2.50	25141	-	-	-	-	-	-	-	-	-
	50.00	3.00	24123	-	21143	-	-	-	-	-	-	-
	50.00	3.50	24305	-	-	-	-	-	-	-	-	-
	50.00	4.00	24193	-	21213	-	-	-	-	-	-	-
	50.00	5.00	25269	-	22289	-	-	-	29543	-	-	-
	50.00	7.00	25239	-	-	-	-	-	-	-	-	-
329	**50.17**	5.33	28296	28804	27786	37077	37497	42091	47636	27277	37685	39966
405	**50.17**	6.99	47176	-	-	20211	-	-	47708	-	-	-
226[A]	**50.39**	3.53	28217	28725	27707	36999	37418	42081	47557	27198	36339	-
136	**50.47**	2.62	28148	28657	27639	36931	37350	-	47489	27130	37676	-
033	**50.52**	1.78	28096	28605	27587	36829	36879	-	47432	27078	43305	-
831	**50.80**	3.53	28497	-	-	-	-	-	-	-	-	-
	51.00	2.00	35063	-	35893	-	-	-	-	-	-	-
	51.00	2.50	25315	-	-	-	-	-	-	-	-	-
	51.00	3.00	34447	-	-	-	-	-	-	-	-	-
	51.00	4.00	25536	-	-	-	-	-	-	-	-	-
P52	**51.30**	5.70	37755	-	-	-	-	-	-	-	-	23058
	51.60	2.40	25341	-	-	-	-	-	-	-	-	-
	52.00	1.50	35171	-	-	-	-	-	-	-	-	-
	52.00	2.00	25161	-	-	-	-	-	-	-	-	-
	52.00	2.50	25316	-	-	-	-	-	-	-	-	-
	52.00	3.00	24223	-	21243	-	-	-	-	-	-	-
	52.00	3.50	25094	-	-	-	-	-	-	-	-	-
	52.00	4.00	24194	19725	-	-	-	-	-	-	-	-
	52.00	5.00	35107	-	-	-	-	-	-	-	-	-
	52.00	6.50	35178	-	-	-	-	-	-	-	-	-
137	**52.07**	2.62	28149	28658	27640	36932	37351	-	47490	27131	37677	-
P53	**52.30**	5.70	24550	-	-	-	-	-	-	-	-	23059
832	**52.40**	3.53	28498	-	-	-	-	-	-	-	-	47887

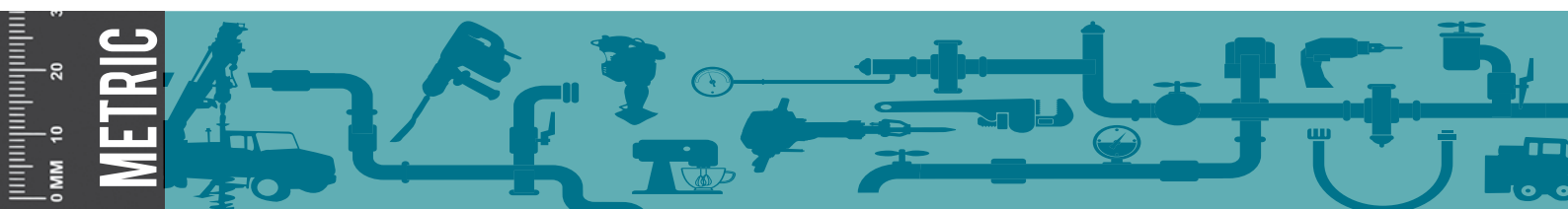
[A] Also available in V80 Encap. PTFE - Part number 42108

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	53.00	1.50	25492	-	21162	-	-	-	-	-	-	-
	53.00	2.00	25162	-	-	-	-	-	-	-	-	-
	53.00	2.50	25142	-	-	-	-	-	-	-	-	-
	53.00	3.00	24976	-	-	-	-	-	-	-	-	-
	53.00	4.00	25508	-	-	-	-	-	-	-	-	-
	53.00	7.00	24417	-	-	-	-	-	-	-	-	-
928	**53.09**	3.00	-	29080	-	-	-	-	-	-	-	-
330	**53.34**	5.33	28297	28805	27787	37078	37498	42092	47637	27278	37686	39967
406	**53.34**	6.99	47175	-	-	20212	-	-	47709	-	-	-
227	**53.57**	3.53	28218	28726	27708	37000	37419	42082	47558	27199	36340	-
138	**53.64**	2.62	28150	28659	27641	36933	37352	-	47491	27132	37678	-
034	**53.70**	1.78	28097	28606	27588	36830	36880	-	47433	27079	43306	-
	54.00	2.00	24272	-	-	-	-	-	-	-	-	-
	54.00	2.50	25538	-	-	-	-	-	-	-	-	-
	54.00	3.00	24206	-	21226	-	-	-	-	-	-	-
	54.00	3.50	25095	-	-	-	-	-	-	-	-	-
	54.00	4.00	24195	19726	21215	-	-	-	-	-	-	-
	54.00	5.00	40346	-	21230	-	-	-	-	-	-	-
P55	**54.30**	5.70	25407	-	-	41545	-	-	-	-	-	23024
G55	**54.40**	3.10	24508	20039	-	-	-	-	-	-	-	23017
	54.60	2.40	37735	-	-	-	-	-	-	-	-	-
	55.00	2.00	25294	-	22314	-	-	-	-	-	-	-
	55.00	2.50	25143	-	-	-	-	-	-	-	-	-
	55.00	3.00	25117	-	22137	-	-	-	29542	-	-	-
	55.00	4.00	25219	-	-	-	-	-	-	-	-	-
	55.00	5.00	25270	-	-	-	-	-	-	-	-	-
	55.00	6.00	24205	-	-	-	-	-	-	-	-	-
139	**55.25**	2.62	28151	28660	27642	36934	37353	-	47492	27133	37679	-
P56	**55.30**	5.70	24479	-	-	-	-	-	-	-	-	22988
	55.50	3.00	37745	-	-	-	-	-	-	-	-	-
834	**55.56**	3.53	28500	-	-	-	-	-	-	47809	-	47888
	55.60	2.40	37736	-	-	-	-	-	-	-	-	-



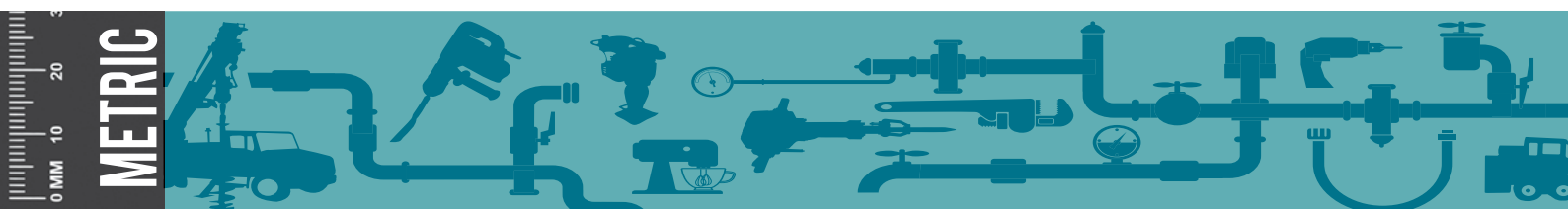
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	56.00	1.50	35360	-	-	-	-	-	-	-	-	-
	56.00	2.00	24273	-	-	-	-	-	-	-	-	-
	56.00	2.50	25539	-	-	-	-	-	-	-	-	-
	56.00	3.00	24225	-	21245	-	-	-	29555	-	-	-
	56.00	4.00	25220	-	22240	-	-	-	-	-	-	-
	56.00	5.00	25271	-	-	-	-	-	-	-	-	-
331	56.52	5.33	28298	28806	27788	37079	37499	42093	47638	27279	37687	-
407	56.52	6.99	47174	-	-	20213	-	-	47710	-	-	-
228	56.74	3.53	28219	28727	27709	37001	37420	42083	47559	27200	36341	39969
140	56.82	2.62	28152	28661	27643	36935	37354	-	47493	27134	37680	-
035	56.87	1.78	28098	28607	27589	36831	36881	-	47434	27080	43307	-
	57.00	1.50	25509	-	-	-	-	-	-	-	-	-
	57.00	2.00	25295	-	-	-	-	-	-	-	-	-
	57.00	2.50	25144	-	-	-	-	-	-	-	-	-
	57.00	3.00	24192	19723	-	44057	-	-	-	-	-	-
	57.00	4.00	25221	-	-	-	-	-	-	-	-	-
835	57.15	3.53	28501	-	-	-	-	-	-	-	-	47334
P58	57.30	5.70	24551	-	-	-	-	-	-	-	-	23060
G58	57.40	3.10	25521	25520	-	-	-	-	-	-	23014	24027
	57.50	3.00	37746	-	-	-	-	-	-	-	-	-
	57.60	2.40	24975	-	21995	-	-	-	-	-	-	-
	58.00	1.00	-	-	36084	-	-	-	-	-	-	-
	58.00	2.50	25540	-	-	-	-	-	-	-	-	-
	58.00	3.00	24149	-	21169	-	-	-	-	-	-	-
	58.00	4.00	24196	-	-	-	-	-	-	-	-	-
	58.00	5.00	36380	-	-	-	-	-	-	-	-	-
	58.20	7.00	24418	-	-	-	-	-	29549	-	-	-
141	58.42	2.62	28153	28662	27644	36936	37355	-	47494	27135	43324	-
	58.60	2.40	37737	-	-	-	-	-	-	-	-	-
836	58.74	3.53	28502	-	-	-	-	-	-	-	-	47026
	59.00	2.00	35064	-	-	-	-	-	-	-	-	-
	59.00	2.50	25541	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	59.00	3.00	24431	-	-	-	-	-	-	-	-	-
	59.00	4.00	35079	-	-	-	-	-	-	-	-	-
P60	59.30	5.70	24102	20047	-	41546	-	-	-	-	-	23025
	59.30	5.70	-	-	21122	-	-	-	-	-	-	-
932	59.36	3.00	-	29081	-	-	-	-	-	-	-	-
G60	59.40	3.10	24509	20040	-	-	-	-	-	-	-	23018
	59.50	3.00	-	-	22138	-	-	-	-	-	-	-
	59.60	2.40	25342	20873	-	-	-	-	-	-	-	-
332	59.69	5.33	28299	28807	27789	37080	37500	42094	47639	27280	37688	-
408	56.69	6.99	47173	-	-	20214	-	-	47711	-	-	-
229	59.92	3.53	28220	28728	27710	37002	37421	-	47560	27201	36342	-
142	59.99	2.62	28154	28663	27645	36937	37356	-	47495	27136	43325	-
	60.00	1.50	35172	-	-	-	-	-	-	-	-	-
	60.00	2.00	25163	-	22183	-	-	-	-	-	-	-
	60.00	2.50	24293	-	-	-	-	-	-	-	-	-
	60.00	3.00	24226	-	-	-	-	-	-	-	-	-
	60.00	4.00	25222	-	-	-	-	-	-	-	-	-
	60.00	5.00	25272	-	-	-	-	-	29515	-	-	-
	60.00	6.00	25493	-	-	-	-	-	-	-	-	-
036	60.05	1.78	28099	28608	27590	36832	36882	-	47435	27081	43308	-
837	60.33	3.53	28503	-	-	-	-	-	-	-	-	-
	61.00	2.00	25296	-	-	-	-	-	-	-	-	-
	61.00	2.50	25542	-	-	-	-	-	-	-	-	-
	61.00	3.00	25327	-	-	-	-	-	-	-	-	-
	61.00	4.00	25545	-	-	-	-	-	-	-	-	-
P62	61.30	5.70	24552	-	-	-	-	-	-	-	-	23061
	61.60	2.40	37738	-	-	-	-	-	-	-	-	-
143	61.60	2.62	28155	28664	27646	36938	37357	-	47496	27137	41637	-
	62.00	2.00	25468	-	-	-	-	-	-	-	-	-
	62.00	2.50	25145	-	-	-	-	-	-	-	-	-
	62.00	3.00	25119	-	22139	-	-	-	-	-	-	-
	62.00	4.00	24197	-	-	-	-	-	-	-	-	-



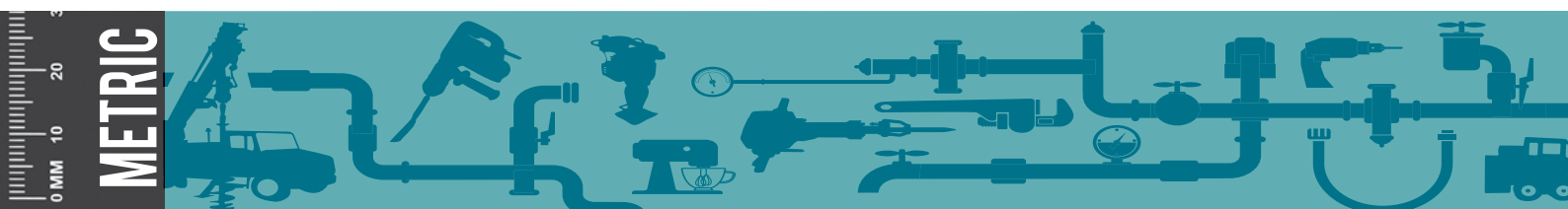
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	62.00	5.00	48093	-	-	-	-	-	-	-	-	-
	62.00	10.00	40514	-	-	-	-	-	-	-	-	-
P63	**62.30**	5.70	25410	-	-	-	-	-	-	-	-	23062
	62.50	3.00	37747	-	-	-	-	-	-	-	-	-
	62.60	2.40	37739	-	-	-	-	-	-	-	-	-
333	**62.87**	5.33	28300	28808	27790	37081	37501	-	47640	27281	37689	-
409	**62.87**	6.99	47172	-	-	20215	-	-	47712	-	-	-
	63.00	1.50	40289	-	-	-	-	-	-	-	-	-
	63.00	2.00	25164	-	-	-	-	-	29557	-	-	-
	63.00	2.50	25317	-	-	-	-	-	-	-	-	-
	63.00	3.00	25120	-	-	-	-	-	-	-	-	-
	63.00	4.00	25546	-	22566	-	-	-	-	-	-	-
230	**63.09**	3.53	28221	28729	27711	37003	37422	42084	47561	27202	36343	-
144	**63.17**	2.62	28156	28665	27647	36939	37358	-	47497	27138	43326	-
037	**63.22**	1.78	28100	28609	27591	36833	36883	-	47436	27082	43309	-
	64.00	2.00	25494	-	-	-	-	-	-	-	-	-
	64.00	2.50	25318	-	-	-	-	-	-	-	-	-
	64.00	3.00	24190	-	21210	-	-	-	-	-	-	-
	64.00	4.00	25510	-	-	-	-	-	-	-	-	-
	64.20	1.60	40326	-	-	-	-	-	-	-	-	-
P65	**64.30**	5.70	25261	20011	-	-	-	-	-	-	-	22989
G65	**64.40**	3.10	24510	20041	21530	-	-	-	-	-	-	23019
	64.60	2.40	35770	-	-	-	-	-	-	-	-	-
145	**64.77**	2.62	28157	28666	27648	36940	37359	-	47498	27139	43327	-
	65.00	2.00	35173	-	-	-	-	-	-	-	-	-
	65.00	2.50	24145	-	-	-	-	-	-	-	-	-
	65.00	3.00	24321	-	-	-	-	-	-	-	-	-
	65.00	4.00	25223	-	-	-	-	-	-	-	-	-
	65.00	5.00	25273	-	-	-	-	-	-	-	-	-
840	**65.09**	3.53	28506	-	-	-	-	-	-	-	-	47110
	66.00	2.00	25307	-	-	-	-	-	-	-	-	-
	66.00	2.50	25543	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	66.00	3.00	24320	-	21340	-	-	-	-	-	-	-
	66.00	4.00	25544	-	-	-	-	-	-	-	-	-
	66.00	6.00	36113	-	-	-	-	-	-	-	-	-
	66.00	7.00	25471	-	-	-	-	-	-	-	-	-
334[A]	**66.04**	5.33	28301	28809	27791	37082	37502	-	47641	27282	37690	39976
410	**66.04**	6.99	47171	-	-	20216	-	-	47713	-	-	-
231	**66.27**	3.53	28222	28730	27712	37004	37423	-	47562	27203	36344	-
P67	**66.30**	5.70	24554	-	-	-	-	-	-	-	-	23063
146	**66.34**	2.62	28158	28667	27649	36941	37360	-	47499	27140	43328	-
038	**66.40**	1.78	28101	28610	27592	36834	36884	-	47437	27083	43310	-
	66.70	7.00	24419	-	-	-	-	-	-	-	-	-
	67.00	1.50	24437	-	-	-	-	-	-	-	-	-
	67.00	2.00	35174	-	-	-	-	-	-	-	-	-
	67.00	2.50	35069	-	-	-	-	-	-	-	-	-
	67.00	3.00	25328	-	-	-	-	-	-	-	-	-
	67.00	4.00	25224	-	-	-	-	-	-	-	-	-
	67.30	5.70	37756	-	-	-	-	-	-	-	-	-
	67.60	2.40	37740	-	-	-	-	-	-	-	-	-
147	**67.95**	2.62	28159	28668	27650	36942	37361	-	47500	27141	43329	-
	68.00	2.00	25308	-	-	-	-	-	-	-	-	-
	68.00	2.50	25547	-	-	-	-	-	-	-	-	-
	68.00	3.00	24227	-	21247	-	-	-	-	-	-	-
	68.00	4.00	25225	-	-	-	-	-	-	-	-	-
	69.00	2.00	35175	-	-	-	-	-	-	-	-	-
	69.00	2.50	25548	-	-	-	-	-	-	-	-	-
	69.00	3.00	25122	-	-	-	-	-	-	-	-	-
	69.00	4.00	25554	-	-	-	-	-	-	-	-	-
	69.00	5.00	25470	-		-	-	-	-	-	-	-
335	**69.22**	5.33	28302	28810	27792	37083	37503	42095	47642	27283	37691	-
411	**69.22**	6.99	47170	-	-	20217	-	-	47714	-	-	-
P70	**69.30**	5.70	24186	41681	-	-	-	-	-	-	-	22990
	69.30	5.70	-	-	21206	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
G70	**69.40**	3.10	24511	20042	-	-	-	-	-	-	-	23020
232	**69.44**	3.53	28223	28731	27713	37005	37424	42085	47563	27204	36345	39970
148	**69.52**	2.62	28160	28669	27651	36943	37362	43010	47501	27142	43330	-
039	**69.57**	1.78	28102	28611	27593	36835	36885	-	47438	27084	43311	-
	69.60	2.40	37741	-	-	-	-	-	-	-	-	-
	70.00	2.00	25309	-	-	-	-	-	-	-	-	-
	70.00	2.50	25319	-	-	-	-	-	-	-	-	-
	70.00	3.00	24228	-	21248	49006	-	-	-	-	-	-
	70.00	4.00	24198	-	21218	-	-	-	-	-	-	-
	70.00	5.00	25274	-	-	-	-	-	29529	-	-	-
	70.00	6.00	25230	-	-	-	-	-	-	-	-	-
P71	**70.30**	5.70	24555	19687	-	-	-	-	-	-	-	23064
	71.00	2.00	25310	-	-	-	-	-	-	-	-	-
	71.00	2.50	25549	-	-	-	-	-	-	-	-	-
	71.00	3.00	35071	-	-	-	-	-	-	-	-	-
	71.00	4.00	25555	-	-	-	-	-	-	-	-	-
149	**71.12**	2.62	28161	28670	27652	36944	37363	-	47502	27143	43331	-
	71.30	5.70	37757	19687	-	-	-	-	-	-	-	-
844	**71.44**	3.53	28510	-	-	-	-	-	-	-	-	-
	71.50	3.00	25347	-	-	-	-	-	-	-	-	-
	72.00	2.00	25165	20696	-	-	-	-	-	-	-	-
	72.00	2.50	25550	-	-	-	-	-	-	-	-	-
	72.00	3.00	25124	-	22144	-	-	-	-	-	-	-
	72.00	4.00	24199	-	-	-	-	-	-	-	-	-
	72.30	5.70	37758	-	-	-	-	-	-	-	-	-
336	**72.39**	5.33	28303	28811	27793	37084	37504	42096	47643	27284	37692	-
412	**72.39**	6.99	-	-	-	20218	-	-	47715	-	-	-
233	**72.62**	3.53	28224	28732	27714	37006	37425	42086	47564	27205	36346	-
150	**72.69**	2.62	28162	28671	27653	36945	37364	-	47503	27144	43332	-
040	**72.75**	1.78	28103	28612	27594	36836	36886	-	47439	27085	43312	-
	73.00	2.50	25551	-	-	-	-	-	-	-	-	-
	73.00	3.00	34448	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	73.00	4.00	25556	-	-	-	-	-	-	-	-	-
	74.00	2.00	24185	-	-	-	-	-	-	-	-	-
	74.00	2.50	25552	-	-	-	-	-	-	-	-	-
	74.00	3.00	25125	-	-	-	-	-	-	-	-	-
	74.00	4.00	25553	-	-	-	-	-	-	-	-	-
P75	74.30	5.70	25262	20013	-	-	-	-	-	-	-	22991
G75	74.40	3.10	24512	20043	-	-	-	-	-	-	-	23021
619	74.63	5.33	28559	-	-	-	-	-	-	-	-	-
	75.00	2.00	34581	-	-	-	-	-	-	-	-	-
	75.00	2.50	24175	-	47140	-	-	-	-	-	-	-
	75.00	3.00	24302	19833	21322	-	-	-	-	-	-	-
	75.00	4.00	25463	-	-	-	-	-	-	-	-	-
	75.00	5.00	25275	-	-	-	-	-	-	-	-	-
	75.00	7.00	38220	-	-	-	-	-	-	-	-	-
	75.00	8.00	36189	-	-	-	-	-	-	-	-	-
	75.50	3.00	25472	-	-	-	-	-	-	-	-	-
337	75.57	5.33	28304	28812	27794	37085	37505	42097	47644	27285	37693	39977
413	75.57	6.99	-	-	-	20219	-	-	47716	-	-	-
234	75.79	3.53	28225	28733	27715	37007	37426	42087	47565	27206	36347	-
151	75.87	2.62	28163	28672	27654	36946	37365	-	47504	27145	-	-
041	75.92	1.78	28104	28613	27595	36837	36887	-	47440	27086	43313	-
	76.00	2.00	25166	-	-	-	-	-	-	-	-	-
	76.00	2.50	25146	-	-	-	-	-	-	-	-	-
	76.00	3.00	25126	-	-	-	-	-	-	-	-	-
	76.00	4.00	25565	-	22585	-	-	-	-	-	-	-
	76.00	8.00	35179	-	-	-	-	-	-	-	-	-
	77.00	2.00	35361	-	-	-	-	-	-	-	-	-
	77.00	2.50	25557	-	-	-	-	-	-	-	-	-
	77.00	3.00	25329	-	-	-	-	-	-	-	-	-
	77.00	4.00	24200	-	-	-	-	-	-	-	-	-
P78	77.30	5.70	24597	-	-	-	-	-	-	-	-	23106
	78.00	2.00	25567	-	-	-	-	-	-	-	-	-

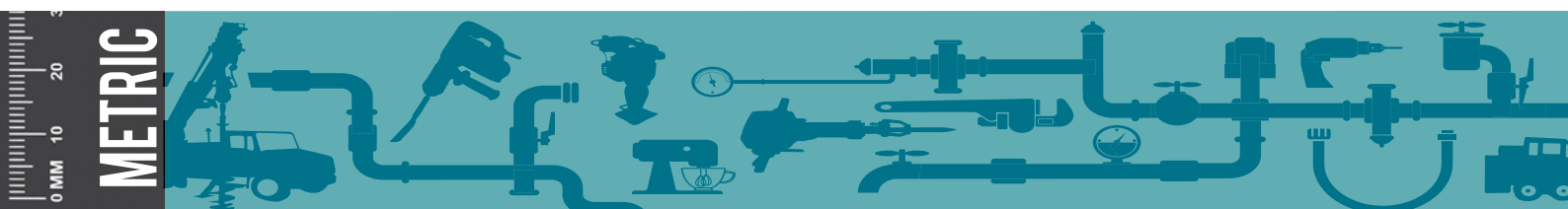


DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	78.00	2.50	25558	-	-	-	-	-	-	-	-	-
	78.00	3.00	25127	-	22147	-	-	-	-	-	-	-
	78.00	4.00	25226	-	-	-	-	-	-	-	-	-
	78.00	5.00	25276	-	-	-	-	-	-	-	-	-
	78.00	7.00	24420	-	-	-	-	-	-	-	-	-
338	78.74	5.33	28305	28813	27795	37086	37506	-	47645	27286	37694	39978
414	78.74	6.99	-	-	-	20220	-	-	47717	-	-	-
235	78.97	3.53	28226	28734	27716	37008	37427	-	47566	27207	36348	-
532	79.00	1.78	28532	-	-	-	-	-	-	-	-	-
	79.00	2.00	35176	-	-	-	-	-	-	-	-	-
	79.00	2.50	25320	-	-	-	-	-	-	-	-	-
	79.00	3.00	25330	-	-	-	-	-	-	-	-	-
	79.00	4.00	25566	-	-	-	-	-	-	-	-	-
P80	79.30	5.70	25240	20014	22260	-	-	-	-	-	-	22992
G80	79.40	3.10	24513	20044	47207	-	-	-	-	-	-	23022
620	79.77	5.33	28560	-	-	-	-	-	-	-	-	-
	80.00	1.50	24362	-	-	-	-	-	-	-	-	-
	80.00	2.00	35889	-	-	-	-	-	-	-	-	-
	80.00	2.50	25297	-	-	-	-	-	-	-	-	-
	80.00	3.00	24173	-	21193	-	-	-	29507	-	-	-
	80.00	4.00	24201	-	-	-	-	-	-	-	-	-
	80.00	5.00	25473	19688	-	-	-	-	-	-	-	-
	80.00	6.00	25231	-	-	-	-	-	-	-	-	-
	81.00	2.00	42154	-	-	-	-	-	-	-	-	-
	81.00	2.50	25559	-	-	-	-	-	-	-	-	-
	81.00	3.00	34449	-	-	-	-	-	-	-	-	-
	81.00	4.00	34813	-	-	-	-	-	-	-	-	-
	81.00	5.00	40624	-	-	-	-	-	-	-	-	-
	81.30	5.70	37760	-	-	-	-	-	-	-	-	-
339	81.92	5.33	28306	28814	27796	37087	37507	-	47646	27287	37695	-
415	81.92	6.99	-	-	-	20221	-	-	47718	-	-	-
	82.00	2.00	38108	-	21165	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	82.00	2.50	35070	-	-	-	-	-	-	-	-	-
	82.00	3.00	25332	-	22352	-	-	-	-	-	-	-
	82.00	4.00	25227	-	-	-	-	-	-	-	-	-
	82.00	5.00	24391	-	-	-	-	-	-	-	-	-
	82.00	7.00	24421	-	-	-	-	-	-	-	-	-
236	**82.14**	3.53	28227	28735	27717	37009	37428	-	47567	27208	36349	39971
152	**82.22**	2.62	28164	28673	27655	36947	37366	-	47505	27146	43333	-
042	**82.27**	1.78	28105	28614	27596	36838	36888	-	47441	27087	43314	-
	82.30	5.70	25415	-	-	-	-	-	-	-	-	-
	82.50	3.00	40336	-	-	-	-	-	-	-	-	-
	83.00	2.50	25560	-	-	-	-	-	-	-	-	-
	83.00	3.00	34450	-	-	-	-	-	-	-	-	-
	83.00	4.00	34814	-	-	-	-	-	-	-	-	-
	84.00	2.00	38109	-	-	-	-	-	-	-	-	-
	84.00	2.50	25561	-	-	-	-	-	-	-	-	-
	84.00	3.00	25129	-	22149	-	-	-	-	-	-	-
	84.00	4.00	25511	-	-	-	-	-	-	-	-	-
	84.00	5.00	35756	-	-	-	-	-	-	-	-	-
P85	**84.30**	5.70	24484	20015	-	-	-	-	-	-	-	22993
G85	**84.40**	3.10	24514	20045	-	-	-	-	-	-	-	23023
	85.00	2.00	36133	-	-	-	-	-	-	-	-	-
	85.00	2.50	25147	-	-	-	-	-	-	-	-	-
	85.00	3.00	24171	-	21191	-	-	-	-	-	-	-
	85.00	3.50	47132	-	-	-	-	-	-	-	-	-
	85.00	4.00	24142	-	-	-	-	-	-	-	-	-
	85.00	5.00	24400	-	-	-	-	-	-	-	-	-
	85.00	6.00	35126	-	-	-	-	-	-	-	-	-
	85.00	7.00	25499	-	-	-	-	-	-	-	-	-
340	**85.09**	5.33	28307	28815	27797	37088	37508	-	47647	27288	37696	-
416	**85.09**	6.99	-	-	-	20222	-	-	47719	-	-	-
237	**85.32**	3.53	28228	28736	27718	37010	37429	-	47568	27209	36350	-
	86.00	2.50	25562	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	86.00	3.00	34451	-	-	-	-	-	-	-	-	-
	86.00	4.00	35080	-	-	-	-	-	-	-	-	-
	87.00	2.00	34522	-	-	-	-	-	-	-	-	-
	87.00	2.50	25563	-	22583	-	-	-	-	-	-	-
	87.00	3.00	25331	20862	-	-	-	-	-	-	-	-
	87.00	4.00	35081	-	41685	-	-	-	-	-	-	-
	87.30	5.70	25418	-	-	-	-	-	-	-	-	-
	88.00	2.00	38110	-	-	-	-	-	-	-	-	-
	88.00	2.50	25564	-	-	-	-	-	-	-	-	-
	88.00	3.00	25103	-	-	-	-	-	-	-	-	-
	88.00	4.00	34638	-	-	-	-	-	-	-	-	-
	88.00	7.00	24422	-	-	-	-	-	-	-	-	-
341	88.27	5.33	28308	28816	27798	37089	37509	-	47648	27289	37697	-
417	88.27	6.99	-	-	-	20223	-	-	47720	-	-	-
238	88.49	3.53	28229	28737	27719	37011	37430	-	47569	27210	36351	-
153	88.57	2.62	28165	28674	27656	36948	37367	-	47506	27147	43334	-
043	88.62	1.78	28106	28615	27597	36839	36889	-	47442	27088	43315	-
	89.00	2.50	25569	-	-	-	-	-	-	-	-	-
	89.00	3.00	35072	-	-	-	-	-	-	-	-	-
	89.00	4.00	35082	-	-	-	-	-	-	-	-	-
	89.10	5.70	25420	-	-	-	-	-	-	-	-	-
	89.30	5.40	-	-	-	41574	-	-	-	-	-	-
P90	89.30	5.70	25241	20772	-	25419	-	-	-	-	-	22994
G90	89.40	3.10	24491	20022	-	-	-	-	-	-	-	23000
	89.50	3.00	-	-	22124	-	-	-	-	-	-	-
	90.00	2.00	25475	-	-	-	-	-	-	-	-	-
	90.00	2.50	25148	-	-	-	-	-	-	-	-	-
	90.00	3.00	24172	-	-	-	-	-	29518	-	-	-
	90.00	3.50	25096	-	-	-	-	-	-	-	-	-
	90.00	4.00	25495	-	-	-	-	-	-	-	-	-
	90.00	5.00	25277	20808	-	-	-	-	29513	-	-	-
	90.00	6.00	25513	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	90.00	8.00	36132	-	-	-	-	-	-	-	-	-
	91.00	2.50	25570	-	-	-	-	-	-	-	-	-
	91.00	3.00	34452	-	-	-	-	-	-	-	-	-
	91.00	4.00	35083	-	-	-	-	-	-	-	-	-
	91.40	7.00	25577	-	-	-	-	-	-	-	-	-
342	**91.44**	5.33	28309	28817	27799	37090	37510	-	47649	27290	37698	39979
418	**91.44**	6.99	-	-	-	20224	-	-	47721	-	-	-
239	**91.67**	3.53	28230	28738	27720	37012	37431	-	47570	27211	36352	-
536	**91.69**	1.78	34446	-	-	-	-	-	-	-	-	-
	92.00	2.00	47136	-	-	-	-	-	-	-	-	-
	92.00	2.50	25571	-	-	-	-	-	-	-	-	-
	92.00	3.00	25105	-	22125	-	-	-	-	-	-	-
	92.00	4.00	25198	-	41596	-	-	-	-	-	-	-
	92.00	7.00	24423	-	-	-	-	-	-	-	-	-
	92.30	5.70	37761	-	-	-	-	-	-	-	-	-
	93.00	2.50	25572	-	-	-	-	-	-	-	-	-
	93.00	3.00	35073	-	-	-	-	-	-	-	-	-
	93.00	4.00	24174	-	-	-	-	-	-	-	-	-
	94.00	2.50	25298	-	-	-	-	-	-	-	-	-
	94.00	3.00	24176	-	21196	-	-	-	-	-	-	-
	94.00	4.00	25512	-	-	-	-	-	-	-	-	-
P95	**94.30**	5.70	25242	20017	-	-	-	-	-	-	-	22995
	94.30	5.70	-	-	22262	-	-	-	-	-	-	-
G95	**94.40**	3.10	24492	20023	-	41541	-	-	-	-	24000	23001
	94.50	3.00	24978	20509	-	-	-	-	-	-	-	-
	94.60	7.00	24424	-	-	-	-	-	-	-	-	-
343	**94.62**	5.33	28310	28818	27800	37091	37511	-	47650	27291	37699	-
419	**94.62**	6.99	-	-	-	20225	-	-	47722	-	-	-
240	**94.84**	3.53	28231	28739	27721	37013	37432	-	47571	27212	36353	39972
154	**94.92**	2.62	28166	28675	27657	36949	37368	-	47507	27148	43335	-
044	**94.97**	1.78	28107	28616	27598	36840	36890	-	47443	27089	43316	-
	95.00	2.00	25464	-	-	-	-	-	-	-	-	-

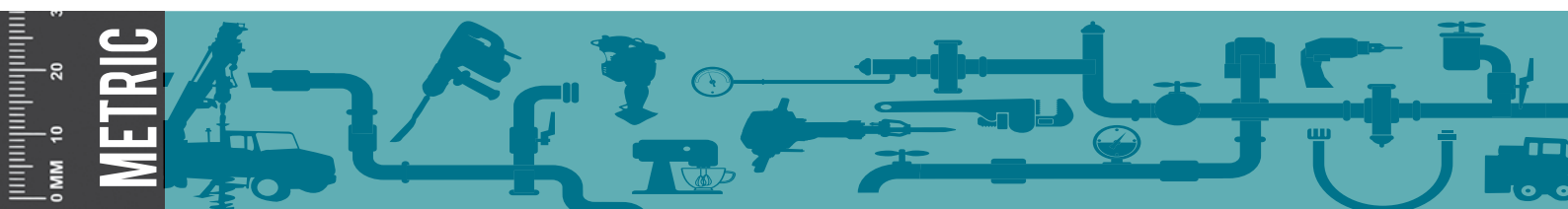


DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	95.00	2.50	25305	-	-	-	-	-	-	-	-	-
	95.00	3.00	34453	-	-	-	-	-	-	-	-	-
	95.00	4.00	24160	-	-	-	-	-	-	-	-	-
	95.00	5.00	25250	-	-	-	-	-	-	-	-	-
	95.00	6.00	41547	-	-	41731	-	-	-	-	-	-
	96.00	2.50	25573	-	-	-	-	-	-	-	-	-
	96.00	3.00	24177	-	21197	-	-	-	-	-	-	-
	96.00	4.00	25199	-	-	-	-	-	-	-	-	-
	96.00	6.00	24161	-	-	-	-	-	-	-	-	-
	97.00	2.50	25574	-	-	-	-	-	-	-	-	-
	97.00	3.00	34454	-	-	-	-	-	-	-	-	-
	97.00	4.00	35084	-	-	-	-	-	-	-	-	-
	97.30	5.70	37762	-	-	-	-	-	-	-	-	-
344[A]	97.79	5.33	28311	28819	27801	37092	37512	-	47651	27292	37700	-
420	97.79	6.99	-	-	-	20226	-	-	47723	-	-	-
	97.80	7.00	25576	-	-	-	-	-	-	-	-	-
	98.00	2.50	25323	-	-	-	-	-	-	-	-	-
	98.00	3.00	25106	-	-	-	-	-	-	-	-	-
	98.00	4.00	24131	-	21151	-	-	-	-	-	-	-
	98.00	4.50	24404	-	-	-	-	-	-	-	-	-
241	98.02	3.53	28232	28740	27722	37014	37433	-	47572	27213	36354	-
538	98.05	1.78	28535	-	-	-	-	-	-	-	-	-
	99.00	2.50	25575	-	-	-	-	-	-	-	-	-
	99.00	3.00	35074	-	-	-	-	-	-	-	-	-
	99.00	4.00	35085	-		-	-	-	-	-	-	-
P100	99.30	5.70	25243	20018	-	-	-	-	-	-	-	22996
G100	99.40	3.10	24493	20024	-	-	-	-	-	-	-	23002
	99.50	3.00	-	-	22127	-	-	-	-	-	-	-
	100.00	2.00	25579	-	47020	-	-	-	-	-	-	-
	100.00	2.50	25324	-	-	-	-	-	-	-	-	-
	100.00	3.00	24178	-	-	-	-	-	29559	-	-	-
	100.00	4.50	38345	-	-	-	-	-	-	-	-	-

[A] Also available in SIL Encap. PTFE - Part number 42223

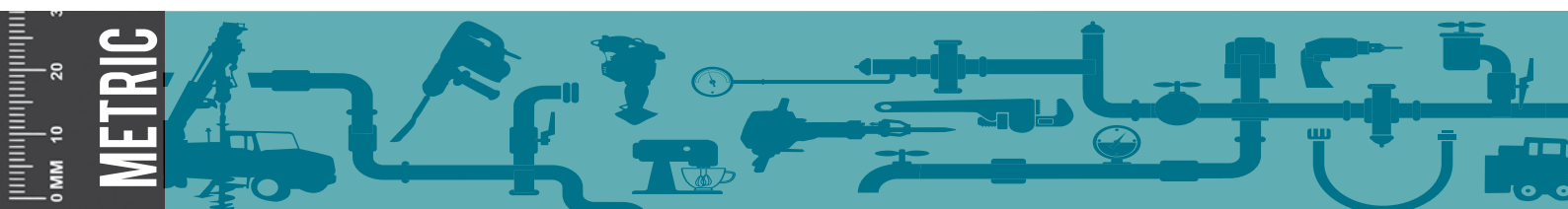
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	100.00	5.00	24328	-	21348	-	-	-	29505	-	-	-
	100.00	6.00	25476	-	-	-	-	-	-	-	-	-
	100.00	7.00	25496	-	-	-	-	-	-	-	-	-
	100.00	8.00	36126	-	-	-	-	-	-	-	-	-
622	100.00	5.33	28562	-	27964	-	-	-	-	-	-	-
345	100.97	5.33	28312	28820	27802	37093	37513	-	47652	27293	37701	-
421	100.97	6.99	-	-	-	20227	-	-	47724	-	-	-
	101.00	3.00	25333	-	-	-	-	-	-	-	-	-
	101.00	4.00	35086	-	-	-	-	-	-	-	-	-
242	101.19	3.53	28233	28741	27723	37015	37434	-	47573	27214	36355	-
155	101.27	2.62	28167	28676	27658	36950	37369	-	47508	27149	-	-
P102	101.30	5.70	24556	20087	-	-	-	-	-	-	-	23065
045	101.32	1.78	28108	28617	27599	36841	36891	-	47444	27090	43317	-
	102.00	3.00	34442	-	-	-	-	-	-	-	-	-
	102.00	4.00	25201	-	-	-	-	-	-	-	-	-
	102.00	5.70	-	-	21177	-	-	-	-	-	-	-
	103.00	2.00	-	-	-	43012	-	-	-	-	-	-
	103.00	3.00	40316	-	-	-	-	-	-	-	-	-
	103.00	4.00	35087	-	-	-	-	-	-	-	-	-
	104.00	3.00	24394	-	21414	-	-	-	-	-	-	-
	104.00	4.00	35088	-	-	-	-	-	-	-	-	-
	104.00	7.00	24435	-	-	-	-	-	-	-	-	-
346	104.14	5.33	28313	28821	27803	37094	37514	-	-	27294	37702	-
422	104.14	6.99	-	-	-	20228	-	-	47725	-	-	-
P105	104.30	5.70	25244	-	-	-	-	-	-	-	-	22997
243	104.37	3.53	28234	28742	27724	37016	37435	-	47574	27215	36356	-
G105	104.40	3.10	24494	20025	-	-	-	-	-	-	-	23003
	105.00	2.50	40022	-	-	41524	-	-	-	-	-	-
[A]	105.00	3.00	24128	-	-	-	-	-	-	-	-	-
	105.00	4.00	25578	-	22598	-	-	-	-	-	-	-
	105.00	5.00	41682	-	-	-	-	-	-	-	-	-
	105.50	3.00	25478	-	-	-	-	-	-	-	-	-

[A] Also available in V80 Encap. PTFE - Part number 42710



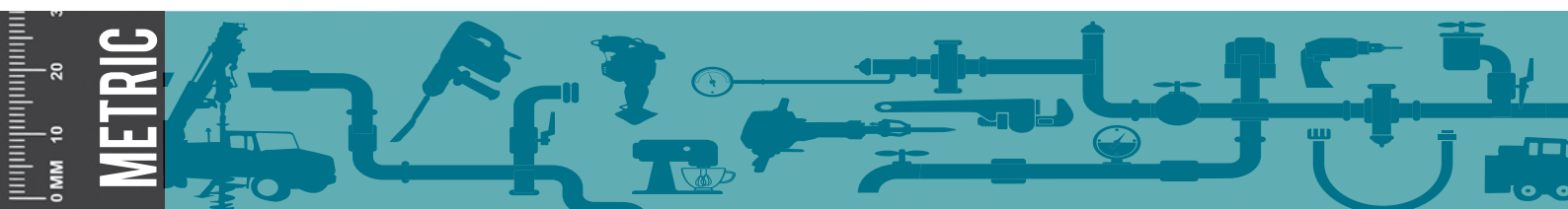
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	106.00	3.00	40317	-	-	-	-	-	-	-	-	-
	106.00	4.00	35089	-	-	-	-	-	-	-	-	-
G107	106.40	3.10	-	-	-	-	-	-	-	-	23996	-
	107.00	3.00	34443	-	-	-	-	-	-	-	-	-
	107.00	4.00	35090	-	-	-	-	-	-	-	-	-
	107.30	7.00	24425	-	-	-	-	-	-	-	-	-
347	107.32	5.33	28314	28822	27804	37095	37515	-	47654	27295	37703	-
423	107.32	6.99	-	-	-	20229	-	-	47726	-	-	-
244	107.54	3.53	28235	28743	27725	37017	37436	-	47575	27216	36357	39973
156	107.62	2.62	28168	28677	27659	36951	37370	-	47509	27150	43336	-
046	107.67	1.78	28109	28618	27600	36842	36892	-	47445	27091	43318	-
	108.00	3.00	25108	-	-	-	-	-	-	-	-	-
	108.00	4.00	35091	-	-	-	-	-	-	-	-	-
	108.00	5.00	41683	-	-	-	-	-	-	-	-	-
	108.00	6.00	25232	-	-	-	-	-	-	-	-	-
	108.00	9.50	-	-	21174	-	-	-	-	-	-	-
	109.00	2.50	47208	-	-	-	-	-	-	-	-	-
	109.00	3.00	24398	-	-	-	-	-	-	-	-	-
	109.00	4.00	35092	-	-	-	-	-	-	-	-	-
P110	109.30	5.70	25245	20020	-	-	-	-	-	-	-	22998
G110	109.40	3.10	24495	20026	-	-	-	-	-	-	-	23004
	109.50	3.00	24405	-	21425	-	-	-	-	-	-	-
	110.00	2.00	34695	-	-	-	-	-	-	-	-	-
	110.00	3.00	24390	-	-	-	-	-	29517	-	-	-
	110.00	4.00	24115	-	-	-	-	-	-	-	-	-
	110.00	4.50	35919	-	-	-	-	-	-	-	-	-
	110.00	5.00	25465	-	-	-	-	-	29527	-	-	-
	110.00	6.00	25497	-	-	-	-	-	-	-	-	-
	110.00	8.00	36127	-	-	-	-	-	-	-	-	-
348	110.49	5.33	28315	28823	27805	37096	37516	-	47655	27296	37704	-
424	110.49	6.99	-	-	-	20230	-	-	47727	-	-	-
	110.50	7.00	25580	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
245	110.72	3.53	28236	28744	27726	37018	37437	-	47576	27217	36358	-
	111.00	3.00	40340	-	-	-	-	-	-	-	-	-
	111.00	4.00	35093	-	-	-	-	-	-	-	-	-
P112	111.30	5.70	24557	-	-	-	-	-	-	-	-	23066
	112.00	2.00	40332	-	-	-	-	-	-	-	-	-
	112.00	3.00	34637	-	-	-	-	-	-	-	-	-
	112.00	4.00	25346	20877	-	-	-	-	-	-	-	-
	113.00	3.00	34444	-	-	-	-	-	-	-	-	-
	113.00	4.00	35094	-	-	-	-	-	-	-	-	-
349	113.67	5.33	28316	28824	27806	37097	37517	-	47656	27297	37705	-
425	113.67	6.99	28363	28884	27866	37144	37577	-	47728	27344	37706	39968
246	113.89	3.53	28237	28745	27727	37019	37438	-	47577	27218	36359	-
157	113.97	2.62	28169	28678	27660	36952	37371	-	47510	27151	43337	-
	114.00	2.00	38348	-	-	-	-	-	-	-	-	-
	114.00	3.00	40341	-	-	-	-	-	-	-	-	-
	114.00	4.00	35095	-		-	-	-	-	-	-	-
047	114.02	1.78	28110	28619	27601	36843	36893	-	47446	27092	43319	-
P115	114.30	5.70	24490	20021	-	-	-	-	-	-	-	22999
G115	114.40	3.10	24496	20027	-	-	-	-	-	-	-	23005
	114.50	3.00	-	-	22129	-	-	-	-	-	-	-
624	114.70	6.99	28568	-	-	-	-	-	-	-	-	-
	115.00	2.00	25457	-	-	-	-	-	-	-	-	-
	115.00	2.50	41888	-	-	-	-	-	-	-	-	-
	115.00	3.00	24151	-	-	-	-	-	-	-	-	-
	115.00	4.00	25202	-	-	-	-	-	-	-	-	-
	115.00	5.00	25251	-	-	-	-	-	-	-	-	-
	115.00	6.00	25233	-	-	-	-	-	-	-	-	-
	116.00	4.00	35096	-	-	-	-	-	-	-	-	-
350	116.84	5.33	28317	28825	27807	37098	37518	-	47657	27298	43414	39980
426	116.84	6.99	28364	28885	27867	37145	37578	-	47729	27345	37707	-
	117.00	3.00	35838	-	-	-	-	-	-	-	-	-
	117.00	4.00	35097	-	-	-	-	-	-	-	-	-



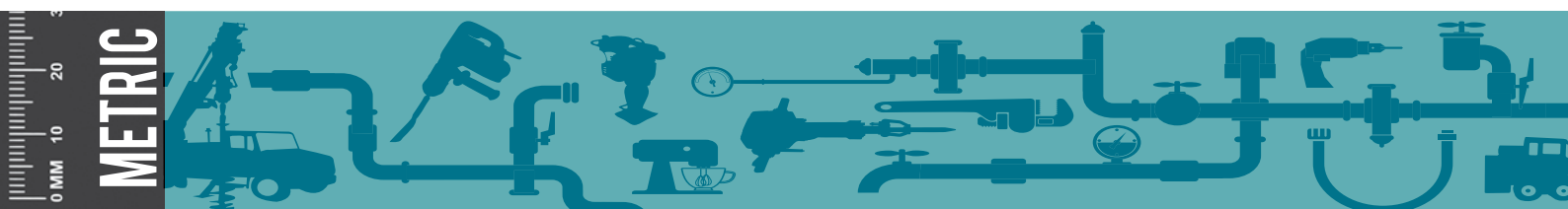
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
247	**117.07**	3.53	28238	28746	27728	37020	37439	-	47578	27219	36360	-
544	**117.10**	1.78	28538	-	-	-	-	-	-	-	-	-
	118.00	3.00	24393	-	-	-	-	-	-	-	-	-
	118.00	4.00	35098	-	-	-	-	-	-	-	-	-
	118.00	6.00	25514	-	-	-	-	-	-	-	-	-
	119.00	4.00	35099	-	-	-	-	-	-	-	-	-
P120	**119.30**	5.70	24457	19988	-	-	-	-	-	-	-	22966
G120	**119.40**	3.10	24497	20028	47016	-	-	-	-	-	-	23006
	120.00	2.00	38111	-	-	-	-	-	-	-	-	-
	120.00	3.00	24314	-	21172	-	-	-	-	-	-	-
	120.00	4.00	24309	19840	-	-	-	-	-	-	-	-
	120.00	5.00	24315	-	-	-	-	-	29526	-	-	-
	120.00	6.00	25234	-	-	-	-	-	-	-	-	-
	120.00	8.00	36137	-	-	-	-	-	-	-	-	-
351	**120.02**	5.33	28318	28826	27808	37099	37519	-	47658	27299	43415	-
427	**120.02**	6.99	28365	28886	27868	37146	37579	-	47730	27346	37708	-
248	**120.24**	3.53	28239	28747	27729	37021	37440	-	47579	27220	42447	39974
158	**120.32**	2.62	28170	28679	27661	36953	37372	-	47511	27152	43338	-
048	**120.37**	1.78	28111	28620	27602	36844	36894	-	47447	27093	43320	-
	121.00	4.00	35100	-	-	-	-	-	-	-	-	-
	122.00	3.00	33772	-	-	-	-	-	-	-	-	-
	122.00	4.00	35101	-	-	-	-	-	-	-	-	-
	123.00	4.00	35102	-	-	-	-	-	-	-	-	-
352	**123.19**	5.33	28319	28827	27809	37100	37520	-	47659	27300	43416	-
428	**123.19**	6.99	28366	28887	27869	37147	37580	-	47731	27347	37709	-
249	**123.42**	3.53	28240	28748	27730	37022	37441	-	47580	27221	43365	-
	124.00	3.00	41727	-	-	-	-	-	-	-	-	-
	124.00	4.00	35103	-	-	-	-	-	-	-	-	-
P125	**124.30**	5.70	24458	19989	-	-	-	-	-	-	-	22967
G125	**124.40**	3.10	24498	20029	-	-	-	-	-	-	-	23007
	125.00	2.00	35065	-	-	-	-	-	-	-	-	-
	125.00	3.00	25483	-	47804	-	-	-	29560	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	125.00	4.00	25203	-	-	-	-	-	-	-	-	-
	125.00	5.00	25252	-	-	-	-	-	29540	-	-	-
	125.00	6.00	25498	-	-	-	-	-	-	-	-	-
	126.00	4.00	25204	-	-	-	-	-	-	-	-	-
353	**126.37**	5.33	28320	28828	27810	37101	37521	-	47660	27301	43417	-
429	**126.37**	6.99	28367	28888	27870	37148	37581	-	47732	27348	43459	37710
250	**126.59**	3.53	28241	28749	27731	37023	37442	-	47581	27222	42448	-
159	**126.67**	2.62	28171	28680	27662	36954	37373	-	47512	27153	43339	-
049	**126.72**	1.78	28112	28621	27603	36845	36895	-	47448	27094	43321	-
	127.00	2.50	38196	-	-	-	-	-	-	-	-	-
	128.00	3.00	25110	-	-	-	-	-	-	-	-	-
P130	**129.30**	5.70	24412	19990	-	-	-	-	-	-	-	22968
548	**129.40**	1.78	28540	-	-	-	-	-	-	-	-	-
G130	**129.40**	3.10	24499	20030	-	-	-	-	-	-	-	23008
354	**129.54**	5.33	28321	28829	27811	37102	37522	-	47661	27302	43418	-
430	**129.54**	6.99	28368	28889	27871	37149	37582	-	47733	27349	37711	-
251	**129.77**	3.53	28242	28750	27732	37024	37443	-	47582	27223	43366	-
	130.00	2.50	40023	-	-	-	-	-	-	-	-	-
	130.00	3.00	24432	-	-	-	-	-	-	-	-	-
	130.00	4.00	25205	-	-	-	-	-	-	-	-	-
	130.00	5.00	25253	-	22273	-	-	-	29512	-	-	-
	130.00	6.00	38311	-	-	-	-	-	-	-	-	-
P132	**131.30**	5.70	24558	-	-	-	-	-	-	-	-	23067
	132.00	3.00	35839	-	-	-	-	-	-	-	-	-
355	**132.72**	5.33	28322	28830	27812	37103	37523	-	47662	27303	43419	-
431	**132.72**	6.99	28369	28890	27872	37150	37583	-	47734	27350	37712	-
252	**132.94**	3.53	28243	28751	27733	37025	37444	-	47583	27224	43367	-
	133.00	4.00	25206	-	-	-	-	-	-	-	-	-
	133.00	4.50	25519	-	-	-	-	-	-	-	-	-
160	**133.02**	2.62	28172	28681	27663	36955	37374	-	47513	27154	43340	-
050	**133.07**	1.78	28113	28622	27604	36846	36896	-	47449	27095	43322	-
P135	**134.30**	5.70	25248	-	-	-	-	-	-	-	-	22969



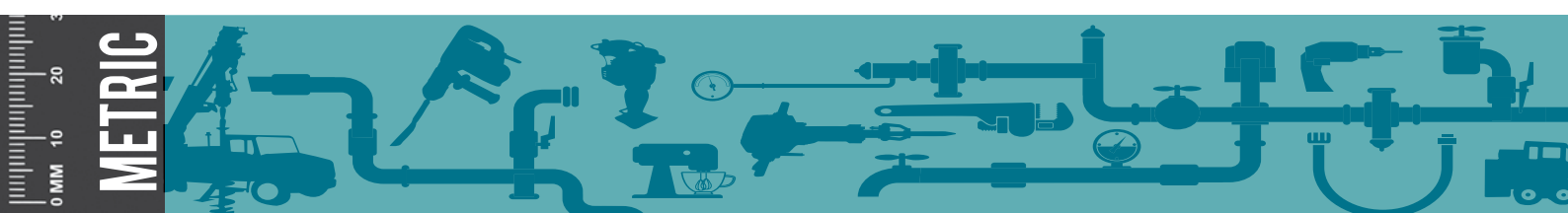
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
G135	134.40	3.10	24500	20031	-	-	-	-	-	-	-	23009
	135.00	3.00	35840	-	-	-	-	-	-	-	-	-
	135.00	4.00	25207	-	-	-	-	-	-	-	-	-
	135.00	5.00	25254	-	-	-	-	-	-	-	-	-
	135.00	6.00	25235	-	-	-	-	-	-	-	-	-
356	135.89	5.33	28323	28831	27813	37104	37524	-	47663	27304	37723	-
432	135.89	6.99	28370	28891	27873	37151	37584	-	47735	27351	37713	-
253	136.12	3.53	28244	28752	27734	37026	37445	-	47584	27225	43368	-
866	136.53	5.33	28519	-	-	-	-	-	-	-	-	-
	138.00	3.00	35841	-	-	-	-	-	-	-	-	-
357	139.07	5.33	28324	28832	27814	37105	37525	-	47664	27305	37724	-
433	139.07	6.99	28371	28892	27874	37152	37585	-	47736	27352	37714	39983
254	139.29	3.53	28245	28753	27735	37027	37446	-	47585	27226	43369	-
P140	139.30	5.70	24308	19992	-	-	-	-	-	-	-	22970
161	139.37	2.62	28173	28682	27664	36956	37375	-	47514	27155	43341	-
G140	139.40	3.10	24501	20032	-	-	-	-	-	-	-	23010
867	139.70	5.33	28520	-	-	-	-	-	-	-	-	-
	140.00	2.00	34427	-	-	-	-	-	-	-	-	-
	140.00	3.00	25479	-	42172	-	-	-	-	-	-	-
	140.00	4.00	33776	-	-	-	-	-	-	-	-	-
	140.00	5.00	-	-	-	-	-	-	29523	-	-	-
	140.00	8.00	25504	-	-	-	-	-	-	-	-	-
	142.00	5.00	24316	-	-	-	-	-	-	-	-	-
358	142.24	5.33	28325	28833	27815	37106	37526	-	47665	27306	43421	-
434	142.24	6.99	28372	28893	27875	37153	37586	-	47737	27353	37715	-
255	142.47	3.53	28246	28754	27736	37028	37447	-	47586	27227	40026	-
868	142.88	5.33	28521	-	-	-	-	-	-	-	-	-
P145	144.30	5.70	25249	20780	-	-	-	-	-	-	-	22971
G145	144.40	3.10	24319	19850	47017	-	-	-	-	-	36311	22828
	145.00	3.00	35842	-	-	-	-	-	-	-	-	-
	145.00	4.00	33777	-	-	-	-	-	-	-	-	-
	145.00	5.00	33778	-	-	-	-	-	-	-	-	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
553	145.29	1.78	28544	-	-	-	-	-	-	-	-	-
359	145.42	5.33	28326	28834	27816	37107	37527	-	47666	27307	43422	-
435	145.42	6.99	28373	28894	27876	37154	37587	-	47738	27354	37716	-
256	145.65	3.53	28247	28755	27737	37029	37448	-	47587	27228	43370	42165
162	145.72	2.62	28174	28683	27665	36957	37376	-	47515	27156	43342	-
554	148.46	1.78	28545	-	-	-	-	-	-	-	-	-
360	148.59	5.33	28327	28835	27817	37108	37528	-	47667	27308	43423	-
436	148.59	6.99	28374	28895	27877	37155	37588	-	47739	27355	37717	-
257	148.82	3.53	28248	28756	27738	37030	37449	-	47588	27229	43371	-
G150	149.30	5.70	-	19838	-	-	-	-	-	-	-	22816
P150	149.30	5.70	24307	20090	-	-	-	-	-	-	-	23068
	149.50	3.00	37748	-	-	-	-	-	-	-	-	-
P150A	149.50	8.40	24463	-	-	-	-	-	-	-	-	22972
	150.00	3.00	24317	-	-	-	-	-	-	-	-	-
	150.00	4.00	25208	-	-	-	-	-	-	-	-	-
	150.00	5.00	25255	-	-	-	-	-	29511	-	-	-
555	151.64	1.78	28546	-	-	-	-	-	-	-	-	-
361	151.77	5.33	28328	28836	27818	37109	37529	-	47667	27309	43423	-
437	151.77	6.99	28375	28896	27878	37156	37589	-	47740	27356	37718	-
258	151.99	3.53	28249	28757	27739	37031	37450	-	47589	27230	43372	-
163	152.07	2.62	28175	28684	27666	36958	37377	-	47516	27157	43343	-
G155	154.30	5.70	24469	41763	-	-	-	-	-	-	-	22978
	154.50	3.00	25213	-	-	-	-	-	-	-	-	-
P155	154.50	8.40	24560	-	-	-	-	-	-	-	-	23069
556	154.81	1.78	28547	-	-	-	-	-	-	-	-	-
644	155.00	5.33	28564	-	-	-	-	-	-	-	-	-
	155.00	3.00	35843	-	47015	-	-	-	-	-	-	-
	155.00	4.00	25209	-	-	-	-	-	-	-	-	-
	155.00	5.00	38344	-	-	-	-	-	-	-	-	-
	155.50	7.00	24436	-	-	-	-	-	-	-	-	-
	156.00	4.00	25210	-	-	-	-	-	-	-	-	-
557	158.00	1.78	28548	-	-	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
362	**158.12**	5.33	28329	28837	27819	37110	37530	-	47669	27310	43425	-
438	**158.12**	6.99	28376	28897	27879	37157	37590	-	47741	27357	37719	-
259	**158.34**	3.53	28250	28758	27740	37032	37451	-	47590	27231	43373	-
164	**158.42**	2.62	28176	28685	27667	36959	37378	-	47517	-	43343	-
G160	**159.30**	5.70	24470	-	-	-	-	-	-	-	-	22979
P160	**159.50**	8.40	24468	-	-	-	-	-	-	-	-	22977
	160.00	2.00	25345	-	-	-	-	-	-	-	-	-
	160.00	3.00	35844	-	-	-	-	-	-	-	-	-
	160.00	4.00	25211	-	-	-	-	-	-	-	-	-
	160.00	5.00	25256	-	-	-	-	-	-	-	-	-
	160.00	6.00	25236	-	-	-	-	-	29504	-	-	-
	160.00	10.00	48094	-	-	-	-	-	-	-	-	-
558	**161.16**	1.78	28549	-	-	-	-	-	-	-	-	-
	164.00	2.00	25344	-	-	-	-	-	-	-	-	-
	164.00	4.00	35104	-	-	-	-	-	-	-	-	-
G165	**164.30**	5.70	24471	-	-	-	-	-	-	-	-	22980
363	**164.47**	5.33	28330	28838	27820	37111	37531	-	47670	27311	43426	-
439	**164.47**	6.99	28377	28898	27880	37158	37591	-	47742	27358	37720	39981
P165	**164.50**	8.40	24561	-	-	-	-	-	-	-	-	23070
260	**164.69**	3.53	28251	28759	27741	37033	37452	-	47591	27232	43374	-
165	**164.77**	2.62	28177	28686	27668	36960	37379	-	47518	-	43344	-
	165.00	3.00	35845	-	-	-	-	-	-	-	-	-
	165.00	4.00	25582	-	-	-	-	-	-	-	-	-
	165.00	5.00	41525	-	-	-	-	-	-	-	-	-
628	**166.70**	6.99	28572	-	-	-	-	-	-	-	-	-
G170	**169.30**	5.70	24472	20003	-	-	-	-	-	-	-	22981
P170	**169.50**	8.40	24464	-	-	-	-	-	-	-	-	22973
	170.00	3.00	35846	-	-	-	-	-	-	-	-	-
	170.00	4.00	25212	-	-	-	-	-	-	-	-	-
	170.00	5.00	-	-	-	-	-	-	29537	-	-	-
	170.00	6.00	24440	-	-	-	-	-	-	-	-	-
364	**170.82**	5.33	28331	28839	27821	37112	37532	-	47671	27312	43427	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
440	170.82	6.99	28378	28899	27881	37159	37592	-	47743	27359	43460	-
261	171.04	3.53	28252	28760	27742	37034	37453	-	47592	27233	43375	-
166	171.12	2.62	28178	28687	27669	36961	37380	-	47519	-	43345	-
G175	174.30	5.70	24473	-	-	-	-	-	-	-	-	22982
P175	174.50	8.40	24562	-	-	-	-	-	-	-	-	23071
	175.00	3.00	35847	38117	-	-	-	-	-	-	-	-
	175.00	4.00	25500	-	-	-	-	-	-	-	-	-
365	177.17	5.33	28332	28840	27822	37113	37533	-	47672	27313	43428	-
441	177.17	6.99	28379	28900	27882	37160	37593	-	47744	27360	43461	-
262	177.39	3.53	28253	28761	27743	37035	37454	-	47593	27234	41597	-
167	177.47	2.62	28179	28688	27670	36962	37381	-	47520	-	43346	-
	178.00	2.00	25501	-	-	-	-	-	-	-	-	-
G180	179.30	5.70	24474	-	-	-	-	-	-	-	-	22983
P180	179.50	8.40	25436	-	-	-	-	-	-	-	22974	47169
	180.00	2.00	34445	-	-	-	-	-	29561	-	-	-
	180.00	3.00	35848	38118	-	-	-	-	-	-	-	-
	180.00	4.00	35105	-	-	-	-	-	-	-	-	-
	180.00	5.00	33779	-	-	-	-	-	29510	-	-	-
	180.00	6.00	-	-	-	-	-	-	29522	-	-	-
880	181.00	6.99	28528	-	-	-	-	-	-	-	-	-
366	183.52	5.33	28333	28841	27823	37114	37534	-	47673	27314	43429	-
442	183.52	6.99	28380	28901	27883	37161	37594	-	47745	27361	43462	-
263	183.74	3.53	28254	28762	27744	37036	37455	-	47594	27235	43376	-
168	183.82	2.62	28180	28689	27671	36963	37382	-	47521	-	73347	-
G185	184.30	5.70	24301	19832	-	-	-	-	-	-	-	22810
P185	184.50	8.40	25437	-	-	-	-	-	-	-	-	23072
	185.00	3.00	35849	38115	-	-	-	-	-	-	-	-
	185.00	4.00	36796	42597	-	-	-	-	-	-	-	-
	185.00	5.00	25257	-	-	-	-	-	-	-	-	-
	185.00	6.00	25237	-	-	-	-	-	-	-	-	-
882	187.30	6.99	28529	-	-	-	-	-	-	-	-	-
	188.00	2.00	38347	-	-	-	-	-	-	-	-	-

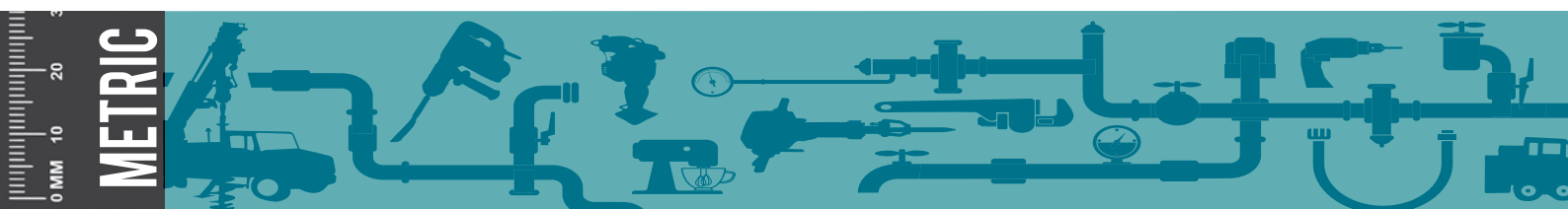


DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	188.00	4.00	40329	-	-	-	-	-	-	-	-	-
G190	189.30	5.70	24475	20006	-	-	-	-	-	-	-	22984
	189.50	3.00	24460	-	-	-	-	-	-	-	-	-
P190	189.50	8.40	24466	-	-	-	-	-	-	-	-	22975
367	189.87	5.33	28334	28842	27824	37115	37535	-	47674	27315	43430	-
443	189.87	6.99	28381	28902	27884	37162	37595	-	47746	27362	40028	39982
	190.00	2.00	35885	-	-	-	-	-	-	-	-	-
	190.00	3.00	35850	38116	-	-	-	-	-	-	-	-
	190.00	4.00	38112	-	-	-	-	-	-	-	-	-
	190.00	5.00	25515	-	-	-	-	-	-	-	-	-
264	190.09	3.53	28255	28763	27745	37037	37456	-	47595	27236	43377	-
169	190.17	2.62	28181	28690	27672	36964	37383	-	47522	-	43348	-
	192.00	4.00	39602	-	-	-	-	-	-	-	-	-
884	193.70	6.99	28530	-	-	-	-	-	-	-	-	-
G195	194.30	5.70	24476	20007	-	-	-	-	-	-	-	22985
	194.50	3.00	25299	-	-	-	-	-	-	-	-	-
P195	194.50	8.40	24564	20095	-	-	-	-	-	-	-	23073
	195.00	3.00	35851	-	-	-	-	-	-	-	-	-
	195.00	4.00	38113	-	-	-	-	-	-	-	-	-
368	196.22	5.33	28335	28843	27825	37116	37536	-	47675	27316	43431	-
444	196.22	6.99	28382	28903	27885	37163	37596	-	47747	27363	43463	-
265	196.44	3.53	28256	28764	27746	37038	37457	-	47596	27237	43378	-
170	196.52	2.62	28182	28691	27673	36965	37384	-	47523	-	43349	-
G200	199.30	5.70	24477	-	-	-	-	-	-	-	-	22986
P200	199.50	8.40	24467	-	-	-	-	-	-	-	-	22976
	200.00	3.00	24407	-	-	-	-	-	-	-	-	-
	200.00	4.00	24296	-	-	-	-	-	-	-	-	-
	200.00	5.00	25258	-	-	-	-	-	-	-	-	-
	200.00	6.00	25238	-	-	-	-	-	-	-	-	-
886	200.00	6.99	28468	-	-	-	-	-	-	-	-	-
369	202.57	5.33	28336	28844	27826	37117	37537	-	47676	27317	43432	-
445	202.57	6.99	28383	28905	27887	37164	37597	-	47748	27364	43464	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
266	**202.79**	3.53	28257	28765	27747	37039	37458	-	47597	27238	43379	-
171	**202.87**	2.62	28183	28692	27674	36966	37385	-	47524	27165	43350	-
P205	**204.50**	8.40	24565	-	-	-	-	-	-	-	-	23074
	205.00	3.00	39601	-	-	-	-	-	-	-	-	-
	205.00	4.00	33780	-	-	-	-	-	-	-	-	-
	207.00	3.00	25458	-	-	-	-	-	-	-	-	-
P209	**208.50**	8.40	24566	-	-	-	-	-	-	-	-	23075
370	**208.92**	5.33	28337	28845	27827	37118	37538	-	47677	27318	43433	-
674	**208.92**	6.99	28469	29000	27982	-	-	-	-	-	-	-
267	**209.14**	3.53	28258	28766	27748	37040	37459	-	47598	27239	43380	-
172	**209.22**	2.62	28184	28693	27675	36967	37386	-	47525	27166	43351	-
G210	**209.30**	5.70	24517	-	-	-	-	-	-	-	-	23026
	209.50	3.00	41891	-	-	-	-	-	-	-	-	-
P210	**209.50**	8.40	24567	-	-	-	-	-	-	-	-	23076
	210.00	3.00	37768	-	47018	-	-	-	-	-	-	-
	210.00	4.00	38114	-	-	-	-	-	-	-	-	-
	210.00	5.00	24318	-	-	-	-	-	29536	-	-	-
	215.00	5.00	34580	-	-	-	-	-	-	-	-	-
371	**215.27**	5.33	28338	28846	27828	37119	37539	-	47678	27319	43434	-
446	**215.27**	6.99	28384	28907	27889	37165	37598	-	47749	27365	43465	-
268	**215.49**	3.53	28259	28767	27749	37041	37460	-	47599	27240	43381	-
173	**215.57**	2.62	28185	28694	27676	36968	37387	-	47526	27167	43352	-
G220	**219.30**	5.70	24518	-	-	-	-	-	-	-	-	23027
	219.50	3.00	24461						-	-	-	-
P220	**219.50**	8.40	24569	-	-	-	-	-	-	-	-	24569
	220.00	3.00	37769	-	-	-	-	-	-	-	-	-
	220.00	4.00	34579	-	-	-	-	-	-	-	-	-
372	**221.62**	5.33	28339	28847	27829	37120	37540	-	47679	27320	43435	-
676	**221.62**	6.99	28064	29001	27983	-	-	-	-	-	-	-
269	**221.84**	3.53	28260	28768	27750	37042	37461	-	47600	27241	43382	-
174	**221.92**	2.62	28186	28695	27677	36969	37388	-	47527	27168	43353	-
P225	**224.50**	8.40	24570	-	-	-	-	-	-	-	-	23079

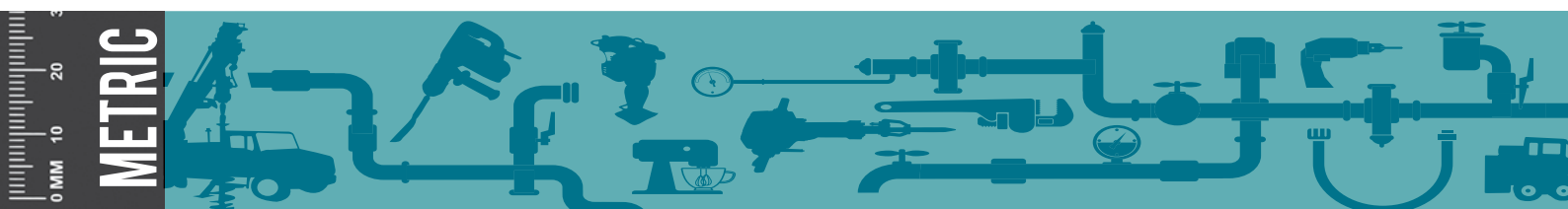
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
373	**227.97**	5.33	28340	28848	27830	37121	37541	-	47680	27321	43436	-
447	**227.97**	6.99	28385	28909	27891	37166	37599	-	47750	27366	43466	-
270	**228.19**	3.53	28261	28769	27751	37043	37462	-	47601	27242	43383	-
175	**228.27**	2.62	28187	28696	27678	36970	37389	-	47528	27169	43354	-
G230	**229.30**	5.70	24519	-	-	-	-	-	-	-	-	35826
P230	**229.50**	8.40	24571	-	-	-	-	-	-	-	-	23080
	230.00	3.00	35277	-	-	-	-	-	-	-	-	-
	230.00	4.00	24298	-	-	-	-	-	-	-	-	-
	234.00	4.00	24480	-	-	-	-	-	-	-	-	-
374	**234.32**	5.33	28341	28849	27831	37122	37542	-	47681	27322	43437	-
678	**234.32**	6.99	28470	29002	27984	-	-	-	-	-	-	-
P235	**234.50**	8.40	24572	-	-	-	-	-	-	-	-	23081
271	**234.54**	3.53	28262	28770	27752	37044	37463	-	47602	27243	43384	-
176	**234.62**	2.62	28188	28697	27679	36971	37390	-	47529	27170	43355	-
	235.00	4.00	36381	-	-	-	-	-	-	-	-	-
G240	**239.30**	5.70	24520	-	21540	-	-	-	-	-	-	23029
P240	**239.50**	8.40	24573	-	-	-	-	-	-	-	-	23082
	240.00	3.00	34651	-	-	-	-	-	-	-	-	-
	240.00	4.00	-	19829	21209	-	-	-	-	-	-	-
	240.00	5.00	25484	-	-	-	-	-	-	-	-	-
	240.00	6.00	-	-	-	-	-	-	29503	-	-	-
375	**240.67**	5.33	28342	28850	27832	37123	37543	-	47682	27323	43438	-
448	**240.67**	6.99	28386	28911	27893	37167	37600	-	47751	27367	37722	-
272	**240.89**	3.53	28263	28771	27753	37045	37464	-	47603	27244	43385	-
177	**240.97**	2.62	28189	28698	27680	36972	37391	-	47530	27171	43356	-
	243.00	3.00	40273	-	-	-	-	-	-	-	-	-
P245	**244.50**	8.40	24574	-	-	-	-	-	-	-	-	23083
	245.00	3.00	37770	-	-	-	-	-	-	-	-	-
	246.00	4.00	24485	-	-	-	-	-	-	-	-	-
680	**247.00**	6.99	28471	29003	27985	-	-	-	-	-	-	-
376	**247.02**	5.33	28343	28851	27833	37124	37544	-	47683	27324	43439	-
273	**247.24**	3.53	28264	28772	27754	37046	37465	-	47604	27245	43386	-

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
178	**247.32**	2.62	28190	28699	27681	36973	37392	-	47531	27172	43357	-
	248.00	5.00	25259	-		-	-	-	-	-	-	-
G250	**249.30**	5.70	24521	20052	-	-	-	-	-	-	-	35827
	249.50	3.00	-	-	34463	-	-	-	-	-	-	-
	250.00	3.00	35076	-	-	-	-	-	-	-	-	-
	250.00	4.00	36180	-	-	-	-	-	-	-	-	-
	250.00	5.00	35918	-	-	-	-	-	-	-	-	-
377	**253.37**	5.33	28344	28852	27834	37125	37545	-	47684	27325	43440	-
449	**253.37**	6.99	28387	28913	27895	37168	37601	-	47752	27368	43467	-
274	**253.59**	3.53	28265	28773	27755	37047	37466	-	47605	27246	43387	-
P255	**254.50**	8.40	24576	-	-	-	-	-	-	-	-	23085
G260	**259.30**	5.70	24522	-	21542	-	-	-	-	-	-	-
682	**259.70**	6.99	28472	29004	27986	-	-	-	-	-	-	-
	260.00	3.00	35075	-	47896	-	-	-	-	-	-	-
	260.00	5.00	35914	-	-	-	-	-	-	-	-	-
	260.00	10.00	40614	-	-	-	-	-	-	-	-	-
P265	**264.50**	8.40	24578	-	-	-	-	-	-	-	-	23087
378	**266.07**	5.33	28345	28853	27835	37126	37546	-	47685	27326	43441	-
450	**266.07**	6.99	28388	28915	27897	37169	37602	-	47753	27369	43468	-
275	**266.29**	3.53	28266	28774	27756	37048	37467	-	47606	27247	43388	-
G270	**269.30**	5.70	24523	20054	-	-	-	-	-	-	-	-
	270.00	5.00	24300	-	-	-	-	-	-	-	-	-
684	**272.40**	6.99	28473	29005	27987	-	-	-	-	-	-	-
P275	**274.50**	8.40	24580	-	-	-	-	-	-	-	-	23089
	275.00	3.00	42157	-	-	-	-	-	-	-	-	-
	276.00	2.00	25502	-	-	-	-	-	-	-	-	-
379	**278.77**	5.33	28346	28854	27836	37127	37547	-	47686	27327	43442	-
451	**278.77**	6.99	28389	28917	27899	37170	37603	-	47754	27370	43469	-
276	**278.99**	3.53	28267	28775	27757	37049	37468	-	47607	27248	43389	-
G280	**279.30**	5.70	24524	-	-	-	-	-	-	-	-	-
P280	**279.50**	8.40	24581	-	-	-	-	-	-	-	-	-
	280.00	5.00	36093	-	-	-	-	-	-	-	-	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	280.00	6.00	-	-	-	-	-	-	29502	-	-	-
P285	284.50	8.40	24582	-	-	-	-	-	-	-	-	23091
686	285.10	6.99	28482	29006	27988	-	-	-	-	-	-	-
G290	289.30	5.70	24525	-	-	-	-	-	-	-	-	-
P290	289.50	8.40	24583	-	-	-	-	-	-	-	-	-
	290.00	4.00	41889	-	-	-	-	-	-	-	-	-
	290.00	6.00	-	-	-	-	-	-	29501	-	-	-
380	291.47	5.33	28347	28855	27837	37128	37548	-	47687	27328	43443	-
452	291.47	6.99	28390	28919	27901	37171	37604	-	47755	27371	43470	-
277	291.69	3.53	28268	28776	27758	37050	37469	-	47608	27249	43390	-
	295.00	4.00	35691	-	-	-	-	-	-	-	-	-
	295.00	5.00	38216	-	-	-	-	-	-	-	-	-
	295.00	6.00	24446	-	-	-	-	-	-	-	-	-
688	297.80	6.99	28475	29007	27989	-	-	-	-	-	-	-
G300	299.30	5.70	24526	-	-	-	-	-	-	-	-	-
P300	299.50	8.40	24585	-	-	-	-	-	-	-	-	23094
	300.00	3.00	47329	-	-	-	-	-	-	-	-	-
381	304.17	5.33	28348	28856	27838	37129	37549	-	47688	27329	43444	-
453	304.17	6.99	28391	28921	27903	37172	37605	-	47756	27372	43471	-
278	304.39	3.53	28269	28777	27759	37051	37470	-	47609	27250	43391	-
	305.00	3.00	-	-	47803	-	-	-	-	-	-	-
	307.00	3.00	-	-	21176	-	-	-	-	-	-	-
	309.30	5.70	37766	-	-	-	-	-	-	-	-	-
	310.00	5.00	24294	-	-	-	-	-	-	-	-	-
	310.00	8.00	35180	-	-	-	-	-	-	-	-	-
648	310.50	6.99	28483	28997	27979	-	-	-	-	-	-	-
P315	314.50	8.40	24586	-	-	-	-	-	-	-	-	23095
	315.00	5.00	-	-	47014	-	-	-	-	-	-	-
454	316.87	6.99	28392	28923	27905	37173	37606	-	47757	27373	43472	-
G320	319.30	5.70	24968	-	-	-	-	-	-	-	-	-
P320	319.50	8.40	24587	-	-	-	-	-	-	-	-	-
	320.00	4.00	24295	-	-	-	-	-	-	-	-	-

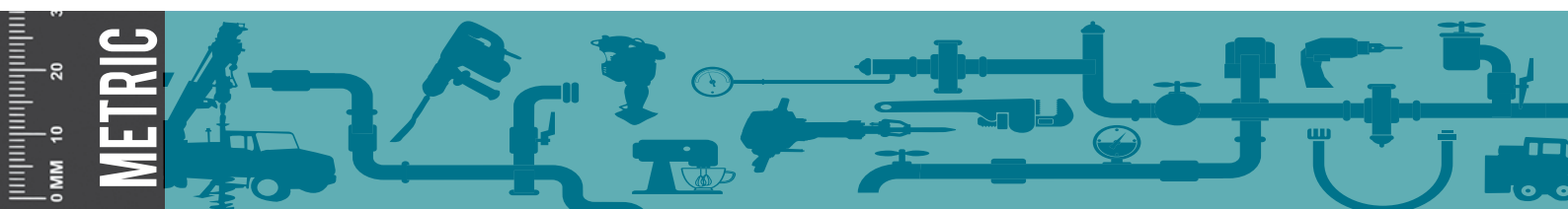
DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
649	**323.20**	6.99	28478	28998	27980	-	-	-	-	-	-	-
382	**329.57**	5.33	28349	28857	27839	37130	37550	-	47689	27330	43445	-
455	**329.57**	6.99	28393	28925	27907	37174	37607	-	47758	27374	43473	-
279	**329.79**	3.53	28270	28778	27760	37052	37471	-	47610	27251	43392	-
P335	**334.50**	8.40	24588	-	-	-	-	-	-	-	-	-
650	**335.90**	6.99	28479	28999	27981	-	-	-	-	-	-	-
G340	**339.30**	5.70	25446	-	-	-	-	-	-	-	-	-
	339.50	8.00	24459	-	-	-	-	-	-	-	-	-
P340	**339.50**	8.40	24589	-	-	-	-	-	-	-	-	23047
	340.00	4.00	-	-	47313	-	-	-	-	-	-	-
	342.00	4.00	-	-	47802	-	-	-	-	-	-	-
456	**342.27**	6.99	28394	28927	27909	37175	37608	-	47759	27375	43474	-
P350	**350.30**	8.40	36109	-	-	-	-	-	-	-	-	-
P355	**354.50**	8.40	24590	-	-	-	-	-	-	-	-	40628
383	**354.97**	5.33	28350	28858	27840	-	-	-	47690	27331	43446	-
457	**354.97**	6.99	28395	28928	27910	37176	37609	-	47760	27376	43475	-
280	**355.19**	3.53	28271	28779	27761	-	37472	-	47611	27252	43393	-
	359.30	5.70	25447	-	-	-	-	-	-	-	-	-
	359.00	8.00	24448	-	-	-	-	-	-	-	-	-
P360	**359.50**	8.40	24591	-	-	-	-	-	-	-	-	-
458	**367.67**	6.99	28396	28929	27911	-	37610	-	47761	27377	43476	-
P375	**374.50**	8.40	24592	-	-	-	-	-	-	-	-	-
G380	**379.30**	5.70	24595	-	-	-	-	-	-	-	-	-
	380.00	5.00	47328	-	-	-	-	-	-	-	-	-
	380.00	8.00	24462	-	-	-	-	-	-	-	-	-
384	**380.37**	5.33	28351	28859	27841	-	-	-	47691	-	43447	-
459	**380.37**	6.99	28397	28930	27912	-	37611	-	47762	27378	43477	-
281	**380.59**	3.53	28272	28780	27762	-	37473	-	47612	27253	43394	-
P385	**384.50**	8.40	24593	-	-	-	-	-	-	-	-	-
	385.00	8.00	39953	-	-	-	-	-	-	-	-	-
	392.00	5.00	24299	-	-	-	-	-	-	-	-	-
460	**393.07**	6.99	28398	28931	27913	-	37612	-	47763	27379	43478	-



DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
	399.30	5.70	25448	-	-	-	-	-	-	-	-	-
P400	399.50	8.40	24594	-	-	-	-	-	-	-	-	-
	400.00	6.00	-	-	-	-	-	-	29521	-	-	-
	400.00	8.00	-	21035	-	-	-	-	-	-	-	-
385	405.26	5.33	28352	28860	27842	-	-	-	47692	-	43448	-
461	405.26	6.99	28399	28932	27914	-	37613	-	47764	27380	43479	-
282	406.40	3.53	28273	28781	27763	37055	37474	-	47613	27254	43395	-
462	417.96	6.99	28400	28933	27915	-	37614	-	47765	27381	43480	-
	419.30	5.70	25449	-	-	-	-	-	-	-	-	-
283	430.66	3.53	28274	28782	27764	-	37475	-	47614	27255	43396	-
386	430.66	5.33	28353	28861	27843	-	-	-	47693	-	43449	-
463	430.66	6.99	28401	28934	27916	-	37615	-	47766	27382	43481	-
	440.00	5.00	-	-	-	-	-	-	29535	-	-	-
464	443.36	6.99	28402	28935	27917	-	37616	-	47767	27383	43482	-
284	456.06	3.53	28275	28783	27765	-	37476	-	47615	27256	43397	-
387[A]	456.06	5.33	28354	28862	27844	-	-	-	47694	-	43450	-
465	456.06	6.99	28403	28936	27918	-	37617	-	47768	27384	43483	-
	459.30	5.70	25451	-	-	-	-	-	-	-	-	-
	460.00	4.00	-	-	21173	-	-	-	-	-	-	-
466	468.76	6.99	28404	28937	27919	-	37618	-	47769	27385	43484	-
	479.30	5.70	25452	-	22472	-	-	-	-	-	-	-
	480.00	8.00	36092	-	-	-	-	-	-	-	-	-
388	481.41	5.33	28355	28863	27845	-	-	-	47695	-	43451	-
467	481.46	6.99	28405	28938	27920	-	37619	-	47770	27386	43485	-
	490.00	5.00	36379	-	-	-	-	-	-	-	-	-
	490.00	6.00	-	-	-	-	-	-	29520	-	-	-
468	494.16	6.99	28406	28939	27921	-	37620	-	47771	27387	43486	-
	499.30	5.70	25453	-	-	-	-	-	-	-	-	-
389	506.81	5.33	28356	28864	27846	-	-	-	47696	-	43452	-
469	506.86	6.99	28407	28940	27922	37188	37621	-	47772	27388	43487	-
390	532.21	5.33	28357	28865	27847	-	-	-	47697	-	43453	-
470	532.26	6.99	28408	28941	27923	27923	37622	-	47773	27389	43488	-

[A] Also available in V80 Encap. PTFE - Part number 42713

DESCRIPTION			MATERIALS							BACKUP		
CODE	Actual ID (mm)	Actual CS (mm)	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL
391	**557.61**	5.33	28358	28866	27848	-	-	-	47698	-	43454	-
471	**557.66**	6.99	28409	28942	27924	-	37623	-	47774	27390	43489	-
392	**582.68**	5.33	28359	28867	27849	-	-	-	47699	-	43455	-
472	**582.68**	6.99	28410	28943	27925	-	37624	-	47775	27391	-	-
393	**608.08**	5.33	28360	28868	27850	-	-	-	47700	-	-	-
473	**608.08**	6.99	28411	28944	27926	-	37625	-	47776	27392	-	-
394	**633.48**	5.33	28361	28869	27851	-	-	-	47701	-	-	-
474	**633.48**	6.99	28412	28945	27927	-	37626	-	47777	27393	-	-
395	**658.88**	5.33	28362	28870	27852	-	-	-	47702	-	-	-
475	**658.88**	6.99	28413	28946	27928	-	37627	-	47778	27394	-	-



Notes

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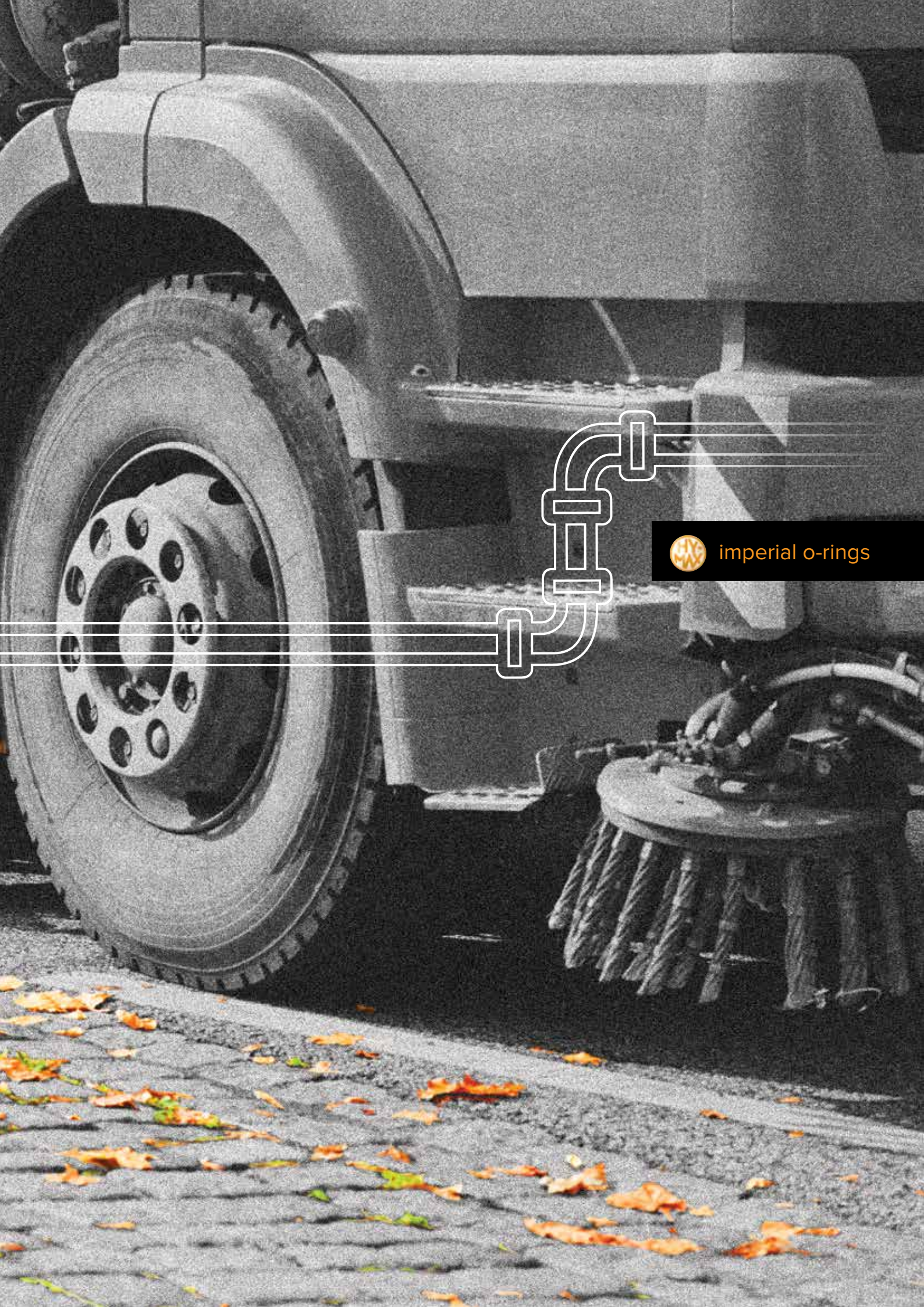
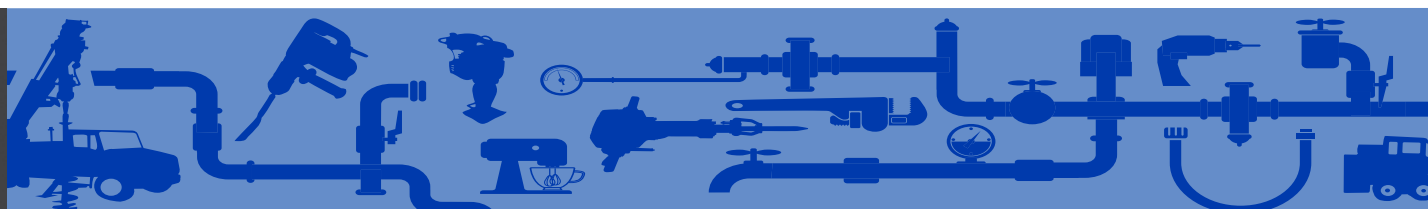

imperial o-rings

DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
001	**0.029**	0.040	0.74	1.02	1/32	1/32	28486	28573	27555	36797	36847	-	47400	-	-	-
002	**0.042**	0.050	1.07	1.27	3/64	3/64	28065	28574	27556	36798	36848	-	47401	-	-	-
102	**0.049**	0.103	1.24	2.62	1/16	3/32	28114	28623	27605	36897	37316	-	47455	27096	-	-
003	**0.056**	0.060	1.42	1.52	1/16	1/16	28066	28575	27557	36799	36849	-	47402	-	-	-
606	-	-	1.78	1.02	-	-	-	-	42865	-	-	-	-	-	-	-
004	**0.070**	0.070	1.78	1.78	5/64	1/16	28067	28576	27558	36800	36850	-	47403	27049	-	-
103	**0.081**	0.103	2.06	2.62	3/32	3/32	28115	28624	27606	36898	37317	-	47456	27097	-	-
607	-	-	2.54	1.02	-	-	40284	-	-	-	-	-	-	-	-	-
005	**0.101**	0.070	2.57	1.78	3/32	1/16	28068	28577	27559	36801	36851	-	47404	27050	-	-
104	**0.112**	0.103	2.84	2.62	1/8	3/32	28116	28625	27607	36899	37318	-	47457	27098	-	-
006	**0.114**	0.070	2.90	1.78	1/8	1/16	28069	28578	27560	36802	36852	42038	47405	27051	-	-
801	-	-	3.17	1.78	-	-	28191	-	-	-	-	-	-	-	-	-
105	**0.143**	0.103	3.63	2.62	5/32	3/32	28117	28626	27608	36900	37319	-	47458	27099	-	-
007	**0.145**	0.070	3.68	1.78	5/32	1/16	28070	28579	27561	36803	36853	-	47406	27052	39606	-
201	**0.171**	0.139	4.34	3.53	3/16	1/8	28192	28700	27682	36974	37393	-	47532	27173	-	-
106	**0.174**	0.103	4.42	2.62	3/16	3/32	28118	28627	27609	36901	37320	-	47459	27100	-	-
008	**0.176**	0.070	4.47	1.78	3/16	1/16	28071	28580	27562	36804	36854	42039	47407	27053	39607	-
901	**0.185**	0.056	4.70	1.42	-	-	-	29061	28043	20231	-	-	47779	-	-	-
107	**0.206**	0.103	5.23	2.62	7/32	3/32	28119	28628	27610	36902	37321	-	47460	27101	-	-
009	**0.208**	0.070	5.28	1.78	7/32	1/16	28072	28581	27563	36805	36855	42040	47408	27054	39608	-
202	**0.234**	0.139	5.94	3.53	1/4	1/8	28193	28701	27683	36975	37394	-	47533	27174	43358	-
108[A]	**0.237**	0.103	6.02	2.62	1/4	3/32	28120	28629	27611	36903	37322	-	47461	27102	43323	-
010	**0.239**	0.070	6.07	1.78	1/4	1/16	28073	28582	27564	36806	36856	42041	47409	27055	37631	-
902	**0.239**	0.064	6.07	1.63	-	-	-	29062	-	20232	-	-	47780	-	-	-
803	-	-	6.35	1.78	-	-	28464	-	-	-	-	-	-	-	-	-
610	-	-	6.75	1.78	-	-	28488	-	-	-	-	-	-	-	-	-
203	**0.296**	0.139	7.52	3.53	5/16	1/8	28194	28702	27684	36976	37395	-	47534	27175	43359	47056
109	**0.299**	0.103	7.59	2.62	5/16	3/32	28121	28630	27612	36904	37323	-	47462	27103	39954	-
903	**0.301**	0.064	7.65	1.63	-	-	-	29063	-	20233	-	-	47781	-	-	-
011	**0.301**	0.070	7.65	1.78	5/16	1/16	28074	28583	27565	36807	36857	42042	47410	27056	37632	-
804	-	-	7.95	1.78	-	-	28491	-	-	-	-	-	-	-	-	-
611	-	-	8.73	1.78	-	-	28465	28972	27954	-	-	-	-	-	-	-

[A] Also available in FVMQ - Part number 28534

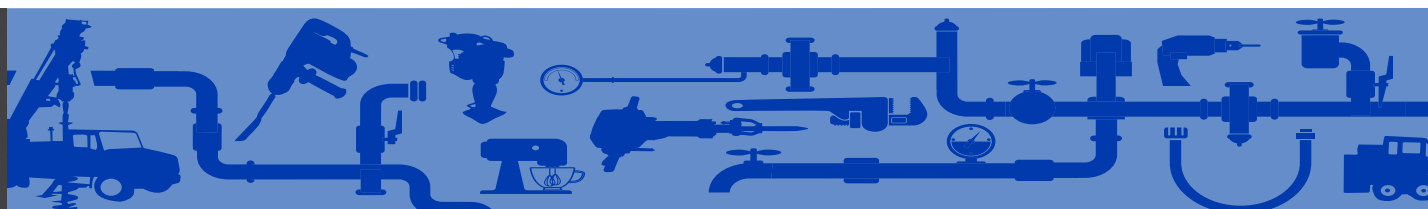


DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
904	**0.351**	0.072	8.92	1.83	-	-	28417	29064	-	20234	-	-	477825	-	-	-
204	**0.359**	0.139	9.12	3.53	3/8	1/8	28195	28703	27685	36977	37396	-	47535	27176	43360	39955
110	0.362	0.103	9.19	2.62	3/8	3/32	28122	28631	27613	36905	37324	42053	47463	27104	37650	-
012	**0.364**	0.070	9.25	1.78	3/8	1/16	28075	28584	27566	36808	36858	42043	47411	27057	37633	-
613	-	-	9.92	2.62	-	-	28459	-	-	-	-	-	-	-	-	-
309	**0.412**	0.210	10.46	5.33	7/16	3/16	28276	28784	27766	37058	37477	-	47616	27257	43398	-
905	**0.414**	0.072	10.52	1.83	-	-	-	29065	-	20235	-	-	47783	-	-	-
205	**0.421**	0.139	10.69	3.53	7/16	1/8	28196	28704	27686	36978	37397	-	47536	27177	43361	-
111	**0.424**	0.103	10.77	2.62	7/16	3/32	28123	28632	27614	36906	37325	42054	47464	27105	37651	-
013	**0.426**	0.070	10.82	1.78	7/16	1/16	28076	28585	27567	36809	36859	42044	47412	27058	37634	-
806	-	-	11.10	1.78	-	-	28466	-	-	-	-	-	-	-	-	-
906	**0.468**	0.078	11.89	1.98	-	-	-	29066	-	20236	-	-	47784	-	-	-
614	-	-	11.91	2.62	-	-	28460	-	-	-	-	-	-	-	-	-
310	**0.475**	0.210	12.07	5.33	1/2	3/16	28277	28785	27767	37059	37478	-	47617	27258	43399	-
206	**0.484**	0.139	12.29	3.53	1/2	1/8	28197	28705	27687	36979	37398	42068	47537	27178	43362	39956
112 [A]	**0.487**	0.103	12.37	2.62	1/2	3/32	28124	28633	27615	36907	37326	42055	47465	27106	37652	-
014	**0.489**	0.070	12.42	1.78	1/2	1/16	28077	28586	27568	36810	36860	42045	47413	27059	37635	-
615	-	-	13.10	2.62	-	-	28461	-	-	-	-	-	-	-	-	-
907	**0.530**	0.087	13.46	2.08	-	-	-	29067	-	20237	-	-	47785	-	-	-
311	**0.537**	0.210	13.64	5.33	9/16	3/16	28278	28786	27768	20205	37479	-	47618	27259	43400	-
207	**0.546**	0.139	13.87	3.53	9/16	1/8	28198	28706	27688	36980	37399	-	47538	27179	36362	-
113	**0.549**	0.103	13.94	2.62	9/16	3/32	28125	28634	27616	36908	37327	42056	47466	27107	37653	-
015	**0.551**	0.070	14.00	1.78	9/16	1/16	28078	28587	27569	36811	36861	42046	47414	27060	37636	-
616	-	-	15.08	2.62	-	-	28462	-	-	-	-	-	-	-	-	-
312	**0.600**	0.210	15.24	5.33	5/8	3/16	28279	28787	27769	37060	37480	-	47619	27260	43401	-
208	**0.609**	0.139	15.47	3.53	5/8	1/8	28199	28707	27689	36981	37400	-	47539	27180	43363	39957
114	**0.612**	0.103	15.54	2.62	5/8	3/32	28126	28635	27617	36909	37328	42057	47467	27108	37654	-
016	**0.614**	0.070	15.60	1.78	5/8	1/16	28079	28588	27570	36812	36862	42047	47415	27061	37637	-
809	-	-	15.88	2.62	-	-	28463	-	-	-	-	-	-	-	-	-
908	**0.644**	0.087	16.36	2.20	-	-	-	29068	-	20238	-	-	47786	-	-	-
313	**0.662**	0.210	16.81	5.33	11-16	3/16	28280	28788	27770	37061	37481	-	47620	27261	43402	-
209	**0.671**	0.139	17.04	3.53	11/16	1/8	28200	28708	27690	36982	37401	-	47540	27181	43364	-

[A] Also available in V80 Encap. PTFE - Part number 42220

DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
115	**0.674**	0.103	17.12	2.62	11/16	3/32	28127	28636	27618	36910	37329	42058	47468	27109	37655	-
017	**0.676**	0.070	17.17	1.78	11/16	1/16	28080	28589	27571	36813	36863	42048	47416	27062	37638	-
810	-	-	17.45	2.62	-	-	28493	-	-	-	-	-	-	-	-	-
617	-	-	17.86	2.62	-	-	28456	28977	-	-	-	-	-	-	-	-
909	**0.706**	0.097	17.93	2.46	-	-	-	29069	-	20239	-	-	47787	-	-	-
314	**0.725**	0.210	18.42	5.33	3/4	3/16	28281	28789	27771	37062	37482	-	47621	27262	43403	-
210	**0.734**	0.139	18.64	3.53	3/4	1/8	28201	28709	27691	36983	37402	42069	47541	27182	36315	39958
116[A]	**0.737**	0.103	18.72	2.62	3/4	3/32	28128	28637	27619	36911	37330	42059	47469	27110	37656	-
018	**0.739**	0.070	18.77	1.78	3/4	1/16	28081	28590	27572	36814	36864	42049	47417	27063	37639	-
910	-	0.097	19.18	2.46	-	-	28423	29070	28052	20240	-	-	47788	-	-	-
315	**0.787**	0.210	19.99	5.33	13/16	3/16	28282	28790	27772	37063	37483	-	47622	27263	43404	-
211	**0.796**	0.139	20.22	3.53	13/16	1/8	28202	28710	27692	36984	37403	42070	47542	27183	36316	-
117[B]	**0.799**	0.103	20.30	2.62	13/16	3/32	28129	28638	27620	36912	37331	42060	47470	27111	37657	-
019	**0.801**	0.070	20.35	1.78	13/16	1/16	28082	28591	27573	36815	36865	-	47418	27064	37640	-
812	-	-	20.64	2.62	-	-	28489	-	-	-	-	-	-	-	-	-
316	**0.850**	0.210	21.59	5.33	7/8	3/16	28283	28791	27773	37064	37484	-	47623	27264	43405	-
212	**0.859**	0.139	21.82	3.53	7/8	1/8	28203	28711	27693	36985	37404	-	47543	27184	36317	39959
118[C]	**0.862**	0.103	21.89	2.62	7/8	3/32	28130	28639	27621	36913	37332	42061	47471	27112	37658	-
911	**0.863**	0.116	21.92	2.95	-	-	-	29071	-	20241	-	-	47789	-	-	-
020	**0.864**	0.070	21.95	1.78	7/8	1/16	28083	28592	27574	36816	36866	42050	47419	27065	37641	-
813	-	-	22.22	2.62	-	-	28457	-	-	-	-	-	-	-	-	-
317	**0.912**	0.210	23.16	5.33	15/16	3/16	28284	28792	27774	37065	37485	-	47624	27265	43406	-
213	**0.921**	0.139	23.39	3.53	15/16	1/8	28204	28712	27694	36986	37405	42071	47544	27185	36318	-
912	**0.924**	0.116	23.47	2.95	-	-	-	29072		20242	-	-	47790	-	-	-
119	**0.924**	0.103	23.47	2.62	15/16	3/32	28131	28640	27622	36914	37333	42062	47472	27113	37659	-
021	**0.926**	0.070	23.52	1.78	15/16	1/16	28084	28593	27575	36817	36867	-	47420	27066	37642	-
814	-	-	23.81	2.62	-	-	28458	-	-	-	-	-	-	-	-	-
318	**0.975**	0.210	24.77	5.33	1	3/16	28285	28793	27775	37066	37486	-	47625	27266	43407	-
214[D]	**0.984**	0.139	25.00	3.53	1	1/8	28205	28713	27695	36987	37406	-	47545	27186	36319	39960
913	**0.986**	0.116	25.04	2.95	-	-	-	29073	-	20243	-	-	47791	-	-	-
120	**0.987**	0.103	25.07	2.62	1	3/32	28132	28641	27623	36915	37334	42063	47473	27114	37660	-
022	**0.989**	0.070	25.12	1.78	1	1/16	28085	28594	27576	36818	36868	42051	47421	27067	37643	-

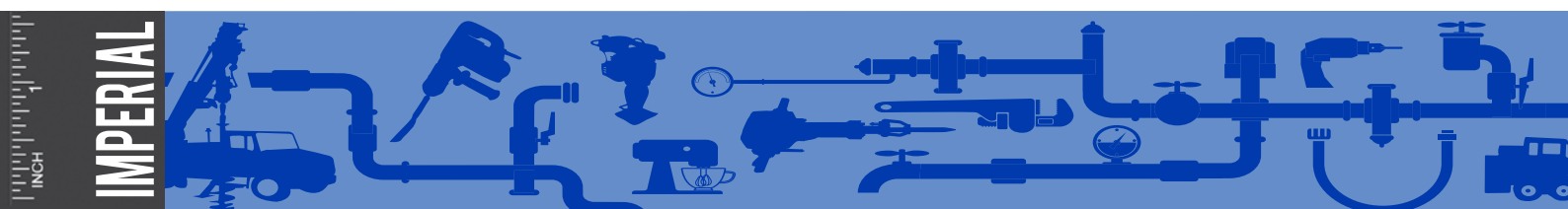
[A] Also available in V80 Encap. PTFE - Part number 42211
[B] Also available in V80 Encap. PTFE - Part number 42173
[C] Also available in SIL Encap. PTFE - Part number 42221
[D] Also available in SIL Encap. PTFE - Part number 42222



DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
618	-	-	25.80	3.53	-	-	28558	-	-	-	-	-	-	-	-	-
319	**1.037**	0.210	26.34	5.33	1-1/16	3/16	28286	28794	27776	37067	37487	-	47626	27267	43408	-
215	**1.046**	0.139	26.57	3.53	1-1/16	1/8	28206	28714	27696	36988	37407	-	47546	27187	36320	-
914	**1.047**	0.116	26.59	2.95	-	-	-	29074	28056	20244	-	-	47792	-	-	-
121	**1.049**	0.103	26.64	2.62	1-1/16	3/32	28133	28642	27624	36916	37335	42064	47474	27115	37661	-
023	**1.051**	0.070	26.70	1.78	1-1/16	1/16	28086	28595	27577	36819	36869	42052	47422	27068	37644	-
320	**1.100**	0.210	27.94	5.33	1-1/8	3/16	28287	28795	27777	37068	37488	-	47627	27268	43409	-
216	**1.109**	0.139	28.17	3.53	1-1/8	1/8	28207	28715	27697	36989	37408	42072	47547	27188	36321	-
122	**1.112**	0.103	28.24	2.62	1-1/8	3/32	28134	28643	27625	36917	37336	42065	47475	27116	37662	-
024	**1.114**	0.070	28.30	1.78	1-1/8	1/16	28087	28596	27578	36820	36870	-	47423	27069	37645	-
321	**1.162**	0.210	29.51	5.33	1-3/16	3/16	28288	28796	27778	37069	37489	-	47628	27269	43410	-
217	**1.171**	0.139	29.74	3.53	1-3/16	1/8	28208	28716	27698	36990	37409	-	47548	27189	36322	-
916	**1.171**	0.116	29.74	2.95	1-3/16	-	-	29076	-	20245	-	-	47793	-	-	-
123	**1.174**	0.103	29.82	2.62	1-3/16	3/32	28135	28644	27626	36918	37337	42066	47476	27117	37663	-
025	**1.176**	0.070	29.87	1.78	1-3/16	1/16	28088	28597	27579	36821	36871	-	47424	27070	37646	-
322	**1.225**	0.210	31.12	5.33	1-1/4	3/16	28289	28797	27779	37070	37490	-	47629	27270	43411	-
218	**1.234**	0.139	31.34	3.53	1-1/4	1/8	28209	28717	27699	36991	37410	42073	47549	27190	36323	39961
124[A]	**1.237**	0.103	31.42	2.62	1-1/4	3/32	28136	28645	27627	36919	37338	42067	47477	27118	37664	-
026	**1.239**	0.070	31.47	1.78	1-1/4	1/16	28089	28598	27580	36822	36872	-	47425	27071	37647	-
323	**1.287**	0.210	32.69	5.33	1-5/16	3/16	28290	28798	27780	37071	37491	-	47630	27271	43412	-
219	**1.296**	0.139	32.92	3.53	1-5/16	1/8	28210	28718	27700	36992	37411	42074	47550	27191	36332	-
125	**1.299**	0.103	32.99	2.62	1-5/16	3/32	28137	28646	27628	36920	37339	-	47478	27119	37665	-
027	**1.301**	0.070	33.05	1.78	1-5/16	1/16	28090	28599	27581	36823	36873	-	47426	27072	37648	-
324	**1.350**	0.210	34.29	5.33	1-3/8	3/16	28291	28799	27781	37072	37492	-	47631	27272	43413	39962
400	**1.350**	0.275	34.29	6.99	1-3/8	1/4								-	-	-
918	**1.355**	0.116	34.42	2.95	1-3/8	-	-	29077	-	20246	-	-	47794	-	-	-
220	**1.359**	0.139	34.52	3.53	1-3/8	1/8	28211	28719	27701	36993	37412	42075	47551	27192	36333	-
126	**1.362**	0.103	34.59	2.62	1-3/8	3/32	28138	28647	27629	36921	37340	-	-	27120	37666	-
028	**1.364**	0.070	34.65	1.78	1-3/8	1/16	28091	28600	27582	36824	36874	-	47427	27073	37649	-
221[B]	**1.421**	0.139	36.09	3.53	1-7/16	1/8	28212	28720	27702	36994	37413	42076	47552	27193	36334	-
127	**1.424**	0.103	36.17	2.62	1-7/16	3/32	28139	28648	27630	36922	37341	-	47480	27121	37667	-
517	-	-	36.27	1.78	-	-	28467	28947	27929	-	-	-	-	-	-	-

[A] Also available in V80 Encap. PTFE - Part number 42105 [B] Also available in V80 Encap. PTFE - Part number 42203

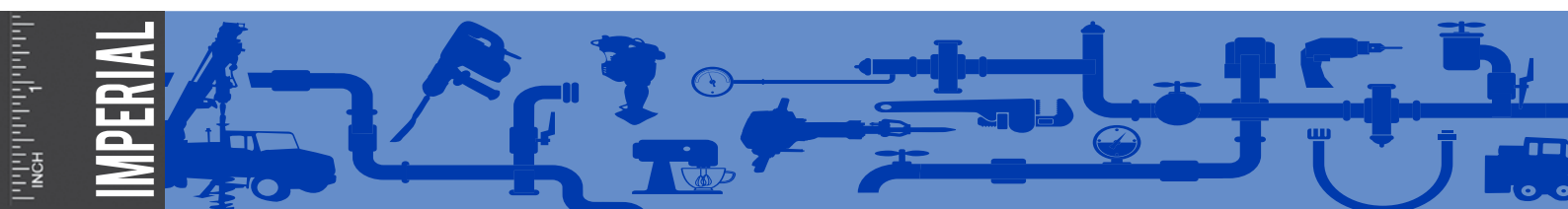
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
920	**1.475**	0.116	37.47	3.00	1-1/2	-	-	29078	-	20247	-	-	47795	-	-	-
325	**1.475**	0.210	37.47	5.33	1-1/2	3/16	28292	28800	27782	37073	37493	-	47632	27273	37681	39963
401	**1.475**	0.275	37.47	6.99	1-1/2	1/4	47180	-	-	20207	-	-	47704	-	-	-
222	**1.484**	0.139	37.69	3.53	1-1/2	1/8	28213	28721	27703	36995	37414	42077	47553	27194	36335	-
128	**1.487**	0.103	37.77	2.62	1-1/2	3/32	28140	28649	27631	36923	37342	-	47481	27122	37668	-
029	**1.489**	0.070	37.82	1.78	1-1/2	1/16	28092	28601	27583	36825	36875	-	47428	27074	43301	-
129	**1.549**	0.103	39.34	2.62	1-9/16	3/32	28141	28650	27632	36924	37343	-	47482	27123	37669	-
824	-	-	39.69	3.53	-	-	28453	-	-	-	-	-	-	-	-	-
326	**1.600**	0.210	40.64	5.33	1-5/8	3/16	28293	28801	27783	37074	37494	42088	47633	27274	37682	39964
402	**1.600**	0.275	40.64	6.99	1-5/8	1/4	47178	-	-	20208	-	-	47705	-	-	-
223	**1.609**	0.139	40.87	3.53	1-5/8	1/8	28214	28722	27704	36996	37415	42078	47554	27195	36336	-
130	**1.612**	0.103	40.94	2.62	1-5/8	3/32	28142	28651	27633	36925	37344	-	47483	27124	37670	-
030	**1.614**	0.070	41.00	1.78	1-5/8	1/16	28093	28602	27584	36826	36876	-	47429	27075	43302	-
825	-	-	41.28	3.53	-	-	28494	-	-	-	-	-	-	-	-	-
131	**1.674**	0.103	42.52	2.62	1-11/16	3/32	28143	28652	27634	36926	37345	-	47484	27125	37671	-
826	-	-	42.86	3.53	-	-	28454	-	-	-	-	-	-	-	-	47884
924	**1.720**	0.116	43.69	3.00	1-3/4	-	-	29079	-	20248	-	-	47796	-	-	-
327	**1.725**	0.210	43.82	5.33	1-3/4	3/16	28294	28802	27784	37075	37495	42089	47634	27275	37683	39965
403	**1.725**	0.275	43.82	6.99	1-3/4	1/4	47178	-	-	20209	-	-	47706	-	-	-
224	**1.734**	0.139	44.04	3.53	1-3/4	1/8	28215	28723	27705	36997	37416	42079	47555	27196	36337	-
132	**1.737**	0.103	44.12	2.62	1-3/4	3/32	28144	28653	27635	36927	37346	-	47485	27126	37672	-
031	**1.739**	0.070	44.17	1.78	1-3/4	1/16	28094	28603	27585	36827	36877	-	47430	27076	43303	-
133	**1.799**	0.103	45.69	2.62	1-13/16	3/32	28145	28654	27636	36928	37347	-	47486	27127	37673	-
828	-	-	46.04	3.53	-	-	28487	-	-	-	-	-	-	-	-	47885
328	**1.850**	0.210	46.99	5.33	1-7/8	3/16	28295	28803	27785	37076	37496	42090	47635	27276	37684	-
404	**1.850**	0.275	46.99	6.99	1-7/8	1/4	47177	-	-	20210	-	-	47707	-	-	-
225	**1.859**	0.139	47.22	3.53	1-7/8	1/8	28216	28724	27706	36998	37417	42080	47556	27197	36338	-
134	**1.862**	0.103	47.30	2.62	1-7/8	3/32	28146	28655	27637	36929	37348	-	47487	27128	37674	-
032	**1.864**	0.070	47.35	1.78	1-7/8	1/16	28095	28604	27586	36828	36878	-	47431	27077	43304	-
829	-	-	47.62	3.53	-	-	28455	-	-	-	-	-	-	-	-	-
135	**1.925**	0.103	48.90	2.62	1-15/16	3/32	28147	28656	27638	36930	37349	-	47488	27129	37675	-
830	-	-	49.20	3.53	-	-	28496	-	-	-	-	-	-	-	-	47886



DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
329	1.975	0.210	50.17	5.33	2	3/16	28296	28804	27786	37077	37497	42091	47636	27277	37685	39966
405	1.975	0.275	50.17	6.99	2	1/4	47176	-	-	20211	-	-	47708	-	-	-
226[A]	1.984	0.139	50.39	3.53	2	1/8	28217	28725	27707	36999	37418	42081	47557	27198	36339	-
136	1.987	0.103	50.47	2.62	2	3/32	28148	28657	27639	36931	37350	-	47489	27130	37676	-
033	1.989	0.070	50.52	1.78	2	1/16	28096	28605	27587	36829	36879	-	47432	27078	43305	-
831	-	-	50.80	3.53	-	-	28497	-	-	-	-	-	-	-	-	-
137	2.050	0.103	52.07	2.62	2-1/16	3/32	28149	28658	27640	36932	37351	-	47490	27131	37677	-
832	-	-	52.40	3.53	2-1/16	1/8	28498	-	-	-	-	-	-	-	-	47887
928	-	-	53.09	3.00	-	-	-	29080	-	20249	-	-	47797	-	-	-
330	2.100	0.210	53.34	5.33	2-1/8	3/16	28297	28805	27787	37078	37498	42092	47637	27278	37686	39967
406	2.100	0.275	53.34	6.99	2-1/8	1/4	47175	-	-	20212	-	-	47709	-	-	-
227	2.109	0.139	53.57	3.53	2-1/8	1/8	28218	28726	27708	37000	37419	42082	47558	27199	36340	-
138	2.112	0.103	53.64	2.62	2-1/8	3/32	28150	28659	27641	36933	37352	-	47491	27132	37678	-
034	2.114	0.070	53.70	1.78	2-1/8	1/16	28097	28606	27588	36830	36880	-	47433	27079	43306	-
139	2.175	0.103	55.25	2.62	2-3/16	3/32	28151	28660	27642	36934	37353	-	47492	27133	37679	-
834	-	-	55.56	3.53	2-3/16	1/8	28500	-	-	-	-	-	-	47809	-	47888
331	2.225	0.210	56.52	5.33	2-1/4	3/16	28298	28806	27788	37079	37499	42093	47638	27279	37687	-
407	2.225	0.275	56.52	6.99	2-1/4	1/4	47174	-	-	20213	-	-	47710	-	-	-
228	2.234	0.139	56.74	3.53	2-1/4	1/8	28219	28727	27709	37001	37420	42083	47559	27200	36341	39969
140	2.237	0.103	56.82	2.62	2-1/4	3/32	28152	28661	27643	36935	37354	-	47493	27134	37680	-
035	2.239	0.070	56.87	1.78	2-1/4	1/16	28098	28607	27589	36831	36881	-	47434	27080	43307	-
835	-	-	57.15	3.53	-	-	28501	-	-	-	-	-	-	-	-	47734
141	2.300	0.103	58.42	2.62	2-5/16	3/32	28153	28662	27644	36936	37355	-	47494	27135	43324	-
836	-	-	58.74	3.53	2-5/16	1/8	28502	-	-	-	-	-	-	-	-	47026
932	2.337	0.116	59.36	3.00	2-3/8	-	-	29081	-	-	-	-	47798	-	-	-
332	2.350	0.210	59.69	5.33	2-3/8	3/16	28299	28807	27789	37080	37500	42094	43639	27280	37688	-
408	2.350	0.275	59.69	6.99	2-3/8	1/4	47173	-	-	20214	-	-	47711	-	-	-
229	2.359	0.139	59.92	3.53	2-3/8	1/8	28220	28728	27710	37002	37421	-	47560	27201	36342	-
142	2.362	0.103	59.99	2.62	2-3/8	3/32	28154	28663	27645	36937	37356	-	47495	27136	43325	-
036	2.364	0.070	60.05	1.78	2-3/8	1/16	28099	28608	27590	36832	36882	-	47435	27081	43308	-
837	-	-	60.33	3.53	-	-	28503	-	-	-	-	-	-	-	-	-
143	2.425	0.103	61.60	2.62	2-7/16	3/32	28155	28664	27646	36938	37357	-	47496	27137	41637	-

[A] Also available in V80 Encap. PTFE - Part number 42108

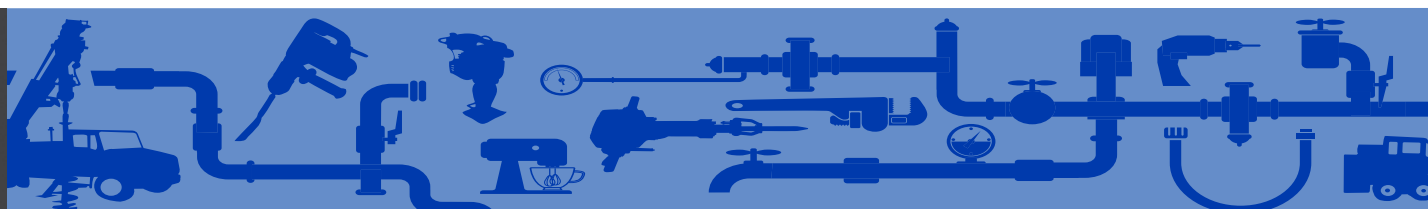
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
838	-	-	61.90	3.53	2-7/16	1/8	-	-	-	-	-	-	-	-	-	47889
333	**2.475**	0.210	62.87	5.33	2-1/2	3/16	28300	28808	27790	37081	37501	-	47640	27281	37689	-
409	**2.475**	0.275	62.87	6.99	2-1/2	1/4	47172	-	-	20215	-	-	47712	-	-	-
230	**2.484**	0.139	63.09	3.53	2-1/2	1/8	28221	28729	27711	37003	37422	42084	47561	27202	36343	-
144	**2.487**	0.103	63.17	2.62	2-1/2	3/32	28156	28665	27647	36939	37358	-	47497	27138	43326	-
037	**2.489**	0.070	63.22	1.78	2-1/2	1/16	28100	28609	27591	36833	36883	-	47436	27082	43309	-
145	**2.550**	0.103	64.77	2.62	2-9/16	3/32	28157	28666	27648	36940	37359	-	47498	27139	43327	-
840	-	-	65.09	3.53	2-9/16	1/8	28506	-	-	-	-	-	-	-	-	47110
334	**2.600**	0.210	66.04	5.33	2-5/8	3/16	28301	28809	27791	37082	37502	-	47641	27282	37690	39976
410	**2.600**	0.275	66.04	6.99	2-5/8	1/4	47171	-	-	20216	-	-	47713	-	-	-
231	**2.609**	0.139	66.27	3.53	2-5/8	1/8	28222	28730	27712	37004	37423	-	47562	27203	36344	-
146	**2.612**	0.103	66.34	2.62	2-5/8	3/32	28158	28667	27649	36941	37360	-	47499	27140	43328	-
038	**2.614**	0.070	66.40	1.78	2-5/8	1/16	28101	28610	27592	36834	36884	-	47437	27083	43310	-
147	**2.675**	0.103	67.95	2.62	2-11/16	3/32	28159	28668	27650	36942	37361	-	47500	27141	43329	-
842	-	-	68.26	3.53	2-11/16	1/8	-	-	-	-	-	-	-	-	-	47027
335	**2.725**	0.210	69.22	5.33	2-3/4	3/16	28302	28810	27792	37083	37503	42095	47642	27283	37691	-
411	**2.725**	0.275	69.22	6.99	2-3/4	1/4	47170	-	-	20217	-	-	47714	-	-	-
232	**2.734**	0.139	69.44	3.53	2-3/4	1/8	28223	28731	27713	37005	37424	42085	47563	27204	36345	39970
148	**2.737**	0.103	69.52	2.62	2-3/4	3/32	28160	28669	27651	36943	37362	43010	47501	27142	43330	-
039	**2.739**	0.070	69.57	1.78	2-3/4	1/16	28102	28611	27593	36835	36885	-	47438	27084	43311	-
843	-	-	69.85	3.53	-	1/8	-	-	-	-	-	-	-	-	-	47890
149	**2.800**	0.103	71.12	2.62	2-13/16	3/32	28161	28670	27652	36944	37363	-	47502	27143	43331	-
844	-	-	71.44	3.53	-	-	28510	-	-	-	-	-	-	-	-	47891
336	**2.850**	0.210	72.39	5.33	2-7/8	3/16	28303	28811	27793	37084	37504	42096	47643	27284	37692	-
412	**2.850**	0.275	72.39	6.99	2-7/8	1/4	-	-	-	20218	-	-	47715	-	-	-
233	**2.859**	0.139	72.62	3.53	2-7/8	1/8	28224	28732	27714	37006	37425	42086	47564	27205	36346	-
150	**2.862**	0.103	72.69	2.62	2-7/8	3/32	28162	28671	27653	36945	37364	-	47503	27144	43332	-
040	**2.864**	0.070	72.75	1.78	2-7/8	1/16	28103	28612	27594	36836	36886	-	47439	27085	43312	-
846	-	-	74.61	3.53	2-15/16	1/8	-	-	-	-	-	-	-	47131	-	47131
619	-	-	74.63	5.33	-	-	28559	-	-	-	-	-	-	-	-	-
337	**2.975**	0.210	75.57	5.33	3	3/16	28304	28812	27794	37085	37505	42097	47644	27285	37693	39977
413	**2.975**	0.275	75.57	6.99	3	1/4	-	-	-	20219	-	-	47716	-	-	-



DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
234	**2.984**	0.139	75.79	3.53	3	1/8	28225	28733	27715	37007	37426	42087	47565	27206	36347	-
151	**2.987**	0.103	75.87	2.62	3	3/32	28163	28672	27654	36946	37365	-	47504	27145	-	-
041	**2.989**	0.070	75.92	1.78	3	1/16	28104	28613	27595	36837	36887	-	47440	27086	43313	-
338	**3.100**	0.210	78.74	5.33	3-1/8	3/16	28305	28813	27795	37086	37506	-	47645	27286	37694	39978
414	**3.100**	0.275	78.74	6.99	3-1/8	1/4	-	-	-	20220	-	-	47717	-	-	-
235	**3.109**	0.139	78.97	3.53	3-1/8	1/8	28226	28734	27716	37008	37427	-	47566	27207	36348	-
532	-	-	79.00	1.78	-	-	28532	-	-	-	-	-	-	-	-	-
620	-	-	79.77	5.33	-	-	28560	-	-	-	-	-	-	-	-	-
339	**3.225**	0.210	81.92	5.33	3-1/4	3/16	28306	28814	27796	37087	37507	-	47646	27287	37695	-
415	**3.225**	0.275	81.92	6.99	3-1/4	1/4	-	-	-	20221	-	-	47718	-	-	-
236	**3.234**	0.139	82.14	3.53	3-1/4	1/8	28227	28735	27717	37009	37428	-	47567	27208	36349	39971
152	**3.237**	0.103	82.22	2.62	3-1/4	3/32	28164	28673	27655	36947	37366	-	47505	27146	43333	-
042	**3.239**	0.070	82.27	1.78	3-1/4	1/16	28105	28614	27596	36838	36888	-	47441	27087	43314	-
340	**3.350**	0.210	85.09	5.33	3-3/8	3/16	28307	28815	27797	37088	37508	-	47647	27288	37696	-
416	**3.350**	0.275	85.09	6.99	3-3/8	1/4	-	-	-	20222	-	-	47719	-	-	-
237	**3.359**	0.139	85.32	3.53	3-3/8	1/8	28228	28736	27718	37010	37429	-	47568	27209	36350	-
341	**3.475**	0.210	88.27	5.33	3-1/2	3/16	28308	28816	27798	37089	37509	-	47648	27289	37697	-
417	**3.475**	0.275	88.27	6.99	3-1/2	1/4	-	-	-	20223	-	-	47720	-	-	-
238	**3.484**	0.139	88.49	3.53	3-1/2	1/8	28229	28737	27719	37011	37430	-	47569	27210	36351	-
153	**3.487**	0.103	88.57	2.62	3-1/2	3/32	28165	28674	27656	36948	37367	-	47506	27147	43334	-
043	**3.489**	0.070	88.62	1.78	3-1/2	1/16	28106	28615	27597	36839	36889	-	47442	27088	43315	-
621	-	-	86.69	5.33	-	3/16	-	-	-	-	-	-	-	-	-	47892
342	**3.600**	0.210	91.44	5.33	3-5/8	3/16	28309	28817	27799	37090	37510	-	47649	27290	37698	39979
418	**3.600**	0.275	91.44	6.99	3-5/8	1/4	-	-	-	20224	-	-	47721	-	-	-
239	**3.609**	0.139	91.67	3.53	3-5/8	1/8	28230	28738	27720	37012	37431	-	47570	27211	36352	-
536	-	-	91.69	1.78	-	1/16	34446	-	-	-	-	-	-	-	-	-
343	**3.725**	0.210	94.62	5.33	3-3/4	3/16	28310	28818	27800	37091	37511	-	47650	27291	37699	-
419	**3.725**	0.275	94.62	6.99	3-3/4	1/4	-	-	-	20225	-	-	47722	-	-	-
240	**3.734**	0.139	94.84	3.53	3-3/4	1/8	28231	28739	27721	37013	37432	-	47571	27212	36353	39972
154	**3.737**	0.103	94.92	2.62	3-3/4	3/32	28166	28675	27657	36949	37368	-	47507	27148	43335	-
044	**3.739**	0.070	94.97	1.78	3-3/4	1/16	28107	28616	27598	36840	36890	-	47443	27089	43316	-
344	**3.850**	0.210	97.79	5.33	3-7/8	3/16	28311	28819	27801	37092	37512	-	47651	27292	37700	-

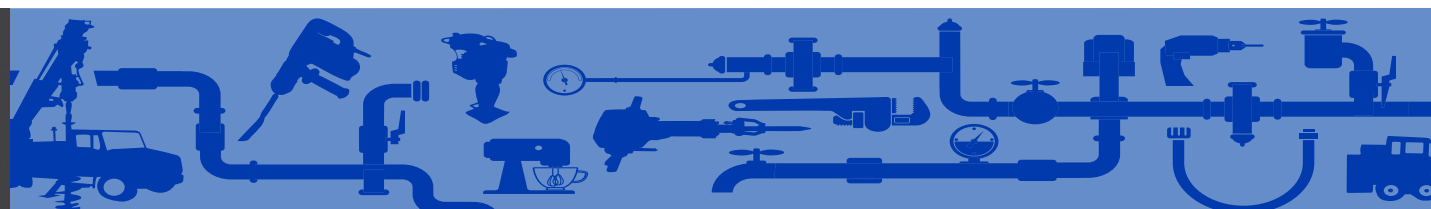
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
420[A]	3.850	0.275	97.79	6.99	3-7/8	1/4	-	-	-	20226	-	-	47723	-	-	-
241	3.859	0.139	98.02	3.53	3-7/8	1/8	28232	28740	27722	37014	37433	-	47572	27213	36354	-
538	-	-	98.05	1.78	-	1/16	28535	-	-	-	-	-	-	-	-	-
622	-	-	100.00	5.33	-	3/16	28562	-	27964	-	-	-	-	-	-	-
345	3.975	0.210	100.97	5.33	4	3/16	28312	28820	27802	37093	37513	-	47652	27293	37701	-
421	3.975	0.275	100.97	6.99	4	1/4	-	-	-	20227	-	-	47724	-	-	-
242	3.984	0.139	101.19	3.53	4	1/8	28233	28741	27723	37015	37434	-	47573	27214	36355	-
155	3.987	0.103	101.27	2.62	4	3/32	28167	28676	27658	36950	37369	-	47508	27149	-	-
045	3.989	0.070	101.32	1.78	4	1/16	28108	28617	27599	36841	36891	-	47444	27090	43317	-
346	4.100	0.210	104.14	5.33	4-1/8	3/16	28313	28821	27803	37094	37514	-	47653	27294	37702	-
422	4.100	0.275	104.14	6.99	4-1/8	1/4	-	-	-	20228	-	-	47725	-	-	-
243	4.109	0.139	104.37	3.53	4-1/8	1/8	28234	28742	27724	37016	37435	-	47574	27215	36356	-
347	4.225	0.210	107.32	5.33	4-1/4	3/16	28314	28822	27804	37095	37515	-	47654	27295	37703	-
423	4.225	0.275	107.32	6.99	4-1/4	1/4	-	-	-	20229	-	-	47726	-	-	-
244	4.234	0.139	107.54	3.53	4-1/4	1/8	28235	28743	27725	37017	37436	-	47575	27216	36357	39973
156	4.237	0.103	107.62	2.62	4-1/4	3/32	28168	28677	27659	36951	37370	-	47509	27150	43336	-
046	4.239	0.070	107.67	1.78	4-1/4	1/16	28109	28618	27600	36842	36892	-	47445	27091	43318	-
623	-	-	109.54	5.33	-	3/16	-	-	-	-	-	-	-	-	-	47893
348	4.350	0.210	110.49	5.33	4-3/8	3/16	28315	28823	27805	37096	37516	-	47655	27296	37704	-
424	4.350	0.275	110.49	6.99	4-3/8	1/4	-	-	-	20230	-	-	47727	-	-	-
245	4.359	0.139	110.72	3.53	4-3/8	1/8	28236	28744	27726	37018	37437	-	47576	27217	36358	-
349	4.475	0.210	113.67	5.33	4-1/2	3/16	28316	28824	27806	37097	37517	-	47656	27297	37705	-
425	4.475	0.275	113.67	6.99	4-1/2	1/4	28363	28884	27866	37144	37577	-	47728	27344	37706	39968
246	4.484	0.139	113.89	3.53	4-1/2	1/8	28237	28745	27727	37019	37438	-	47577	27218	36359	-
157	4.487	0.103	113.97	2.62	4-1/2	3/32	28169	28678	27660	36952	37371	-	47510	27151	43337	-
047	4.489	0.070	114.02	1.78	4-1/2	1/16	28110	28619	27601	36843	36893	-	47446	27092	43319	-
624	-	-	114.70	6.99	-	-	28568	-	-	-	-	-	-	-	-	-
350	4.600	0.210	116.84	5.33	4-5/8	3/16	28317	28825	27807	37098	37518	-	47657	27298	43414	39980
426	4.600	0.275	116.84	6.99	4-5/8	1/4	28364	28885	27867	37145	37578	-	47729	27345	37707	-
247	4.609	0.139	117.07	3.53	4-5/8	1/8	28238	28746	27728	37020	37439	-	47578	27219	36360	-
544	-	-	117.10	1.78	-	-	28538	-	-	-	-	-	-	-	-	-
351	4.725	0.210	120.02	5.33	4-3/4	3/16	28318	28826	27808	37099	37519	-	47658	27299	43415	-

[A] Also available in SIL Encap. PTFE - Part number 42223



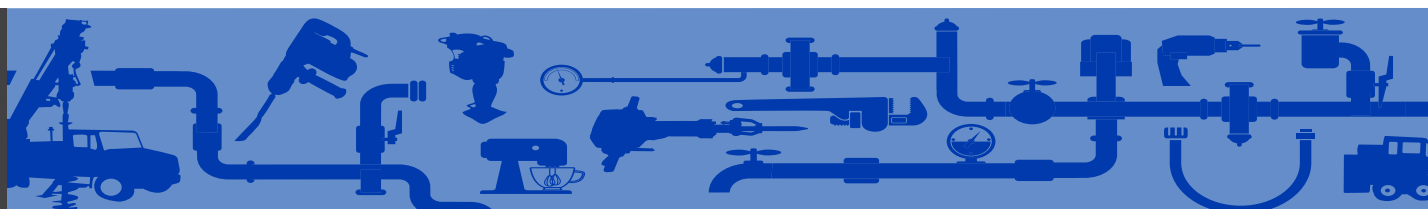
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
427	**4.725**	0.275	120.02	6.99	4-3/4	1/4	28365	28886	27868	37146	37579	-	47730	27346	37708	-
248	**4.734**	0.139	120.24	3.53	4-3/4	1/8	28239	28747	27729	37021	37440	-	47579	27220	42447	39974
158	**4.737**	0.103	120.32	2.62	4-3/4	3/32	28170	28679	27661	36953	37372	-	47511	27152	43338	-
048	**4.739**	0.070	120.37	1.78	4-3/4	1/16	28111	28620	27602	36844	36894	-	47447	27093	43320	-
352	**4.850**	0.210	123.19	5.33	4-7/8	3/16	28319	28827	27809	37100	37520	-	47659	27300	43416	-
428	**4.850**	0.275	123.19	6.99	4-7/8	1/4	28366	28887	27869	37147	37580	-	47731	27347	37709	-
249	**4.859**	0.139	123.42	3.53	4-7/8	1/8	28240	28748	27730	37022	37441	-	47580	27221	43365	-
353	**4.975**	0.210	126.37	5.33	5	3/16	28320	28828	27810	37101	37521	-	47660	27301	43417	-
429	**4.975**	0.275	126.37	6.99	5	1/4	28367	28888	27870	37148	37581	-	47732	27348	43459	37710
250	**4.984**	0.139	126.59	3.53	5	1/8	28241	28749	27731	37023	37442	-	47581	27222	42448	-
159	**4.987**	0.103	126.67	2.62	5	3/32	28171	28680	27662	36954	37373	-	47512	27153	43339	-
049	**4.989**	0.070	126.72	1.78	5	1/16	28112	28621	27603	36845	36895	-	47448	27094	43321	-
548	-	-	129.40	1.78	-	-	28540	-	-	-	-	-	-	-	.	-
354	**5.100**	0.210	129.54	5.33	5-1/8	3/16	28321	28829	27811	37102	37522	-	47661	27302	43418	-
430	**5.100**	0.275	129.54	6.99	5-1/8	1/4	28368	28889	27871	37149	37582	-	47733	27349	37711	-
251	**5.109**	0.139	129.77	3.53	5-1/8	1/8	28242	28750	27732	37024	37443	-	47582	27223	43366	-
355	**5.225**	0.210	132.72	5.33	5-1/4	3/16	28322	28830	27812	37103	37523	-	47662	27303	43419	-
431	**5.225**	0.275	132.72	6.99	5-1/4	1/4	28369	28890	27872	37150	37583	-	47734	27350	37712	-
252	**5.234**	0.139	132.94	3.53	5-1/4	1/8	28243	28751	27733	37025	37444	-	47583	27224	43367	-
160	**5.237**	0.103	133.02	2.62	5-1/4	3/32	28172	28681	27663	36955	37374	-	47513	27154	43340	-
050	**5.239**	0.070	133.07	1.78	5-1/4	1/16	28113	28622	27604	36846	36896	-	47449	27095	43322	-
356	**5.350**	0.210	135.89	5.33	5-3/8	3/16	28323	28831	27813	37104	37524	-	47663	27304	37723	-
432	**5.350**	0.275	135.89	6.99	5-3/8	1/4	28370	28891	27873	37151	37584	-	47735	27351	37713	-
253	**5.359**	0.139	136.12	3.53	5-3/8	1/8	28244	28752	27734	37026	37445	-	47584	27225	43368	-
866	-	-	136.53	5.33	-	-	28519	-	-	-	-	-	-	-	-	-
357	**5.475**	0.210	139.07	5.33	5-1/2	3/16	28324	28832	27814	37105	37525	-	47664	27305	43420	-
433	**5.475**	0.275	139.07	6.99	5-1/2	1/4	28371	28892	27874	37152	37585	-	47736	27352	37714	39983
254	**5.484**	0.139	139.29	3.53	5-1/2	1/8	28245	28753	27735	37027	37446	-	47585	27226	43369	-
161	**5.487**	0.103	139.37	2.62	5-1/2	3/32	28173	28682	27664	36956	37375	-	47514	27155	43341	-
867	-	-	139.70	5.33	-	-	28520	-	-	-	-	-	-	-	-	-
358	**5.600**	0.210	142.24	5.33	5-5/8	3/16	28325	28833	27815	37106	37526	-	47665	27306	43421	-
434	**5.600**	0.275	142.24	6.99	5-5/8	1/4	28372	28893	27875	37153	37586	-	47737	27353	37715	-

DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
255	**5.609**	0.139	142.47	3.53	5-5/8	1/8	28246	28754	27736	37028	37447	-	47586	27227	40026	-
868	-	-	142.88	5.33	-	-	28521	-	-	-	-	-	-	-	-	-
553	-	-	145.29	1.78	-	-	28544	-	-	-	-	-	-	-	-	-
359	**5.725**	0.210	145.42	5.33	5-3/4	3/16	28326	28834	27816	37107	37527	-	47666	27307	43422	-
435	**5.725**	0.275	145.42	6.99	5-3/4	1/4	28373	28894	27876	37154	37587	-	47738	27354	37716	-
256	**5.734**	0.139	145.65	3.53	5-3/4	1/8	28247	28755	27737	37029	37448	-	47587	27228	43370	42165
162	**5.737**	0.103	145.72	2.62	5-3/4	3/32	28174	28683	27665	36957	37376	-	47515	27156	43342	-
554	-	-	148.46	1.78	-	-	28545	-	-	-	-	-	-	-	-	-
360	**5.850**	0.210	148.59	5.33	5-7/8	3/16	28327	28835	27817	37108	37528	-	47667	27308	43423	-
436	**5.850**	0.275	148.59	6.99	5-7/8	1/4	28374	28895	27877	37155	37588	-	47739	27355	37717	-
257	**5.859**	0.139	148.82	3.53	5-7/8	1/8	28248	28756	27738	37030	37449	-	47588	27229	43371	-
555	-	-	151.64	1.78	-	-	28546	-	-	-	-	-	-	-	-	-
361	**5.975**	0.210	151.77	5.33	6	3/16	28328	28836	27818	37109	37529	-	47668	27309	43424	-
437	**5.975**	0.275	151.77	6.99	6	1/4	28375	28896	27878	37156	37589	-	47740	27356	37718	-
258	**5.984**	0.139	151.99	3.53	6	1/8	28249	28757	27739	37031	37450	-	47589	27230	43372	-
163	**5.987**	0.103	152.07	2.62	6	3/32	28175	28684	27666	36958	37377	-	47516	27157	37721	-
556	-	-	154.81	1.78	-	-	28547	-	-	-	-	-	-	-	-	-
644	-	-	155.00	5.33	-	-	28564	-	-	-	-	-	-	-	-	-
557	-	-	158.00	1.78	-	-	28548	-	-	-	-	-	-	-	-	-
362	**6.225**	0.210	158.12	5.33	6-1/4	3/16	28329	28837	27819	37110	37530	-	47669	27310	43425	-
438	**6.225**	0.275	158.12	6.99	6-1/4	1/4	28376	28897	27879	37157	37590	-	47741	27357	37719	-
259	**6.234**	0.139	158.34	3.53	6-1/4	1/8	28250	28758	27740	37032	37451	-	47590	27231	43373	-
164	**6.237**	0.103	158.42	2.62	6-1/4	3/32	28176	28685	27667	36959	37378	-	47517	-	43343	-
558	-	-	161.16	1.78	-	-	28549	-	-	-	-	-	-	-	-	-
363	**6.475**	0.210	164.47	5.33	6-1/2	3/16	28330	28838	27820	37111	37531	-	47670	27311	43426	-
439	**6.475**	0.275	164.47	6.99	6-1/2	1/4	28377	28898	27880	37158	37591	-	47742	27358	37720	39981
260	**6.484**	0.139	164.69	3.53	6-1/2	1/8	28251	28759	27741	37033	37452	-	47591	27232	43374	-
165	**6.487**	0.103	164.77	2.62	6-1/2	3/32	28177	28686	27668	36960	37379	-	47518	-	43344	-
628	-	-	166.70	6.99	-	-	28572	-	-	-	-	-	-	-	-	-
364	**6.725**	0.210	170.82	5.33	6-3/4	3/16	28331	28839	27821	37112	37532	-	47671	27312	43427	-
440	**6.725**	0.275	170.82	6.99	6-3/4	1/4	28378	28899	27881	37159	37592	-	47743	27359	43460	-
261	**6.734**	0.139	171.04	3.53	6-3/4	1/8	28252	28760	27742	37034	37453	-	47592	27233	43375	-



DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
166	**6.737**	0.103	171.12	2.62	6-3/4	3/32	28178	28687	27669	36961	37380	-	47519	-	43345	-
365	**6.975**	0.210	177.17	5.33	7	3/16	28332	28840	27822	37113	37533	-	47672	27313	43428	-
441	**6.975**	0.275	177.17	6.99	7	1/4	28379	28900	27882	37160	37593	-	47744	27360	43461	-
262	**6.984**	0.139	177.39	3.53	7	1/8	28253	28761	27743	37035	37454	-	47593	27234	41597	-
167	**6.987**	0.103	177.47	2.62	7	3/32	28179	28688	27670	36962	37381	-	47520	-	43346	-
880	-	-	181.00	6.99	-	-	28528	-	-	-	-	-	-	-	-	-
366	**7.225**	0.210	183.52	5.33	7-1/4	3/16	28333	28841	27823	37114	37534	-	47673	27314	43429	-
442	**7.225**	0.275	183.52	6.99	7-1/4	1/4	28380	28901	27883	37161	37594	-	47745	27361	43462	-
263	**7.234**	0.139	183.74	3.53	7-1/4	1/8	28254	28762	27744	37036	37455	-	47594	27235	-	-
168	**7.237**	0.103	183.82	2.62	7-1/4	3/32	28180	28689	27671	36963	37382	-	47521	-	43347	-
882	-	-	187.30	6.99	-	-	28529	-	-	-	-	-	-	-	-	-
367	**7.475**	0.210	189.87	5.33	7-1/2	3/16	28334	28842	27824	37115	37535	-	47674	27315	43430	-
443	**7.475**	0.275	189.87	6.99	7-1/2	1/4	28381	28902	27884	37162	37595	-	47746	27362	40028	39982
264	**7.484**	0.139	190.09	3.53	7-1/2	1/8	28255	28763	27745	37037	37456	-	47595	27236	43377	-
169	**7.487**	0.103	190.17	2.62	7-1/2	3/32	28181	28690	27672	36964	37383	-	47522	-	43348	-
884	-	-	193.70	6.99	-	-	28530	-	-	-	-	-	-	-	-	-
368	**7.725**	0.210	196.22	5.33	7-3/4	3/16	28335	28843	27825	37116	37536	-	47675	27316	43431	-
444	**7.725**	0.275	196.22	6.99	7-3/4	1/4	28382	28903	27885	37163	37596	-	47747	27363	43463	-
265	**7.734**	0.139	196.44	3.53	7-3/4	1/8	28256	28764	27746	37038	37457	-	47596	27237	43378	-
170	**7.737**	0.103	196.52	2.62	7-3/4	3/32	28182	28691	27673	36965	37384	-	47523	-	43349	-
886	-	-	200.00	6.99	-	-	28468	-	-	-	-	-	-	-	-	-
369	**7.975**	0.210	202.57	5.33	8	3/16	28336	28844	27826	37117	37537	-	47676	27317	43432	-
445	**7.975**	0.275	202.57	6.99	8	1/4	28383	28905	27887	37164	37597	-	47748	27364	43464	-
266	**7.984**	0.139	202.79	3.53	8	1/8	28257	28765	27747	37039	37458	-	47597	27238	43379	-
171	**7.987**	0.103	202.87	2.62	8	3/32	28183	28692	27674	36966	37385	-	47524	27165	43350	-
370	**8.225**	0.210	208.92	5.33	8-1/4	3/16	28337	28845	27827	37118	37538	-	47677	27318	43433	-
674	-	-	208.92	6.99	-	-	28469	29000	27982	-	-	-	-	-	-	-
267	**8.234**	0.139	209.14	3.53	8-1/4	1/8	28258	28766	27748	37040	37459	-	47598	27239	43380	-
172	**8.237**	0.103	209.22	2.62	8-1/4	3/32	28184	28693	27675	36967	37386	-	47525	27166	43351	-
371	**8.475**	0.210	215.27	5.33	8-1/2	3/16	28338	28846	27828	37119	37539	-	47678	27319	43434	-
446	**8.475**	0.275	215.27	6.99	8-1/2	1/4	28384	28907	27889	37165	37598	-	47749	27365	43465	-
268	**8.484**	0.139	215.49	3.53	8-1/2	1/8	28259	28767	27749	37041	37460	-	47599	27240	43381	-

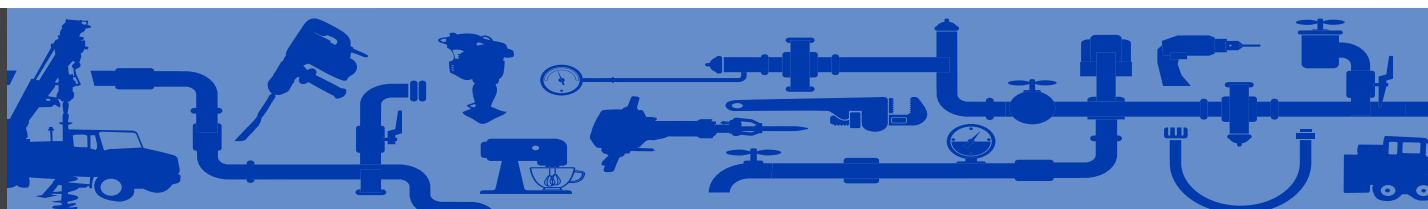
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
173	**8.487**	0.103	215.57	2.62	8-1/2	3/32	28185	28694	27676	36968	37387	-	47526	27167	43352	-
372	**8.725**	0.210	221.62	5.33	8-3/4	3/16	28339	28847	27829	37120	37540	-	47679	27320	43435	-
676	-	-	221.62	6.99	-	-	28064	29001	27983	-	-	-	-	-	-	-
269	**8.734**	0.139	221.84	3.53	8-3/4	1/8	28260	28768	27750	37042	37461	-	47600	27241	43382	-
174	**8.737**	0.103	221.92	2.62	8-3/4	3/32	28186	28695	27677	36969	37388	-	47527	27168	43353	-
373	**8.975**	0.210	227.97	5.33	9	3/16	28340	28848	27830	37121	37541	-	47680	27321	43436	-
447	**8.975**	0.275	227.97	6.99	9	1/4	28385	28909	27891	37166	37599	-	47750	27366	43466	-
270	**8.984**	0.139	228.19	3.53	9	1/8	28261	28769	27751	37043	37462	-	47601	27242	43383	-
175	**8.987**	0.103	228.27	2.62	9	3/32	28187	28696	27678	36970	37389	-	47528	27169	43354	-
374	**9.225**	0.210	234.32	5.33	9-1/4	3/16	28341	28849	27831	37122	37542	-	47681	27322	43437	-
678	-	-	234.32	6.99	-	-	28470	29002	27984	-	-	-	-	-	-	-
271	**9.234**	0.139	234.54	3.53	9-1/4	1/8	28262	28770	27752	37044	37463	-	47602	27243	43384	-
176	**9.237**	0.103	234.62	2.62	9-1/4	3/32	28188	28697	27679	36971	37390	-	47529	27170	43355	-
375	**9.475**	0.210	240.67	5.33	9-1/2	3/16	28342	28850	27832	37123	37543	-	47682	27323	43438	-
448	**9.475**	0.275	240.67	6.99	9-1/2	1/4	28386	28911	27893	37167	37600	-	47751	27367	37722	-
272	**9.484**	0.139	240.89	3.53	9-1/2	1/8	28263	28771	27753	37045	37464	-	47603	27244	43385	-
177	**9.487**	0.103	240.97	2.62	9-1/2	3/32	28189	28698	27680	36972	37391	-	47530	27171	43356	-
680	-	-	247.00	6.99	-	-	28471	29003	27985	-	-	-	-	-	-	-
376	**9.725**	0.210	247.02	5.33	9-3/4	3/16	28343	28851	27833	37124	37544	-	47683	27324	43439	-
273	**9.734**	0.139	247.24	3.53	9-3/4	1/8	28264	28772	27754	37046	37465	-	47604	27245	43386	-
178	**9.737**	0.103	247.32	2.62	9-3/4	3/32	28190	28699	27681	36973	37392	-	47531	27172	43357	-
377	**9.975**	0.210	253.37	5.33	10	3/16	28344	28852	27834	37125	37545	-	47684	27325	43440	-
449	**9.975**	0.275	253.37	6.99	10	1/4	28387	28913	27895	37168	37601	-	47752	27368	43467	-
274	**9.984**	0.139	253.59	3.53	10	1/8	28265	28773	27755	37047	37466	-	47605	27246	43387	-
682	-	-	259.70	6.99	-	-	28472	29004	27986	-	-	-	-	-	-	-
378	**10.475**	0.210	266.07	5.33	10-1/2	3/16	28345	28853	27835	37126	37546	-	47685	27326	43441	-
450	**10.475**	0.275	266.07	6.99	10-1/2	1/4	28388	28915	27897	37169	37602	-	47753	27369	43468	-
275	**10.484**	0.139	266.29	3.53	10-1/2	1/8	28266	28774	27756	37048	37467	-	47606	27247	43388	-
684	-	-	272.40	6.99	-	-	28473	29005	27987	-	-	-	-	-	-	-
379	**10.975**	0.210	278.77	5.33	11	3/16	28346	28854	27836	37127	37547	-	47686	27327	43442	-
451	**10.975**	0.275	278.77	6.99	11	1/4	28389	28917	27899	37170	37603	-	47754	27370	43469	-
276	**10.984**	0.139	278.99	3.53	11	1/8	28267	28775	27757	37049	37468	-	47607	27248	43389	-



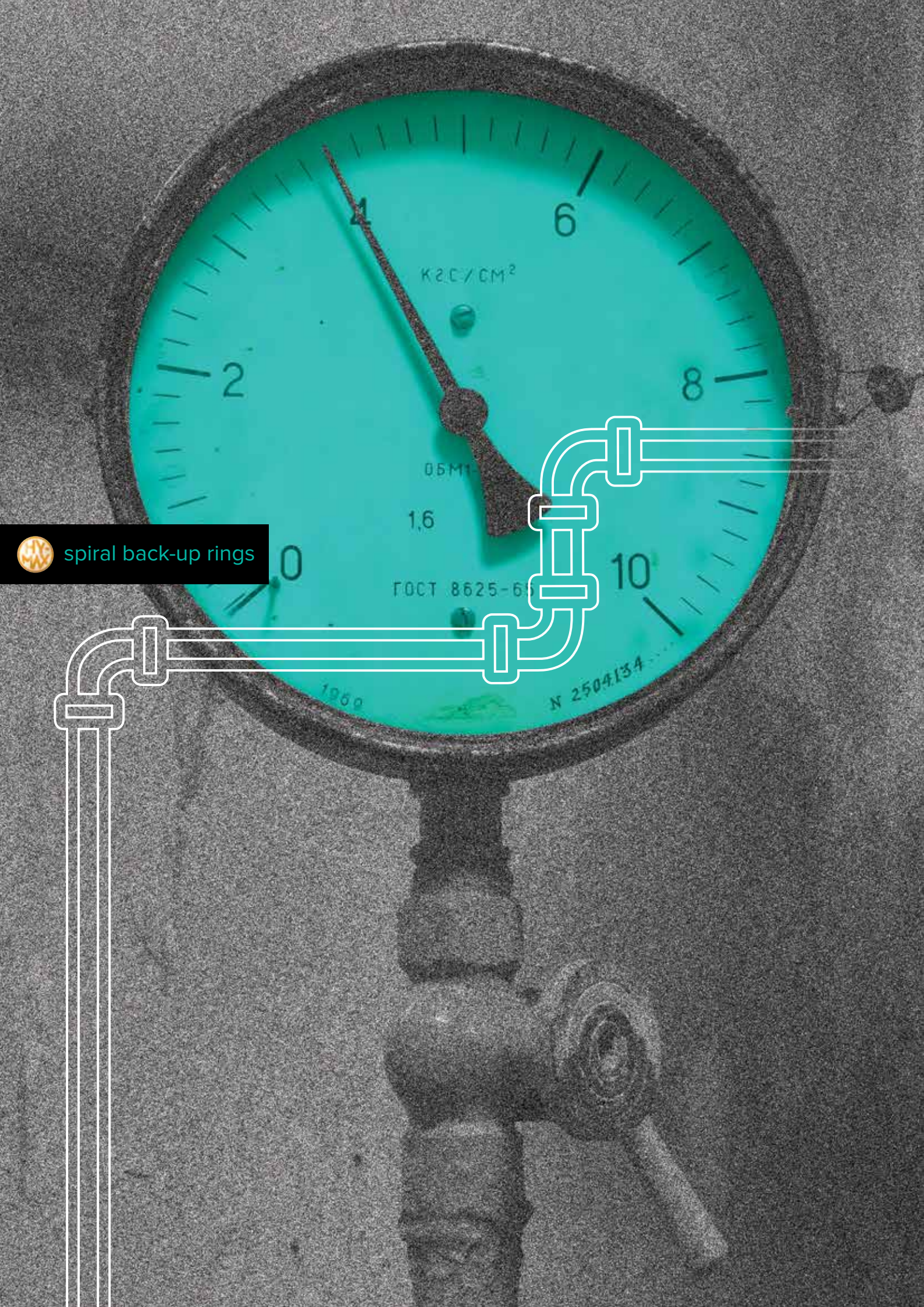
DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
686	-	-	285.10	6.99	-	-	28482	29006	27988	-	-	-	-	-	-	-
380	**11.475**	0.210	291.47	5.33	11-1/2	3/16	28347	28855	27837	37128	37548	-	47687	27328	43443	-
452	**11.475**	0.275	291.47	6.99	11-1/2	1/4	28390	28919	27901	37171	37604	-	47755	27371	43470	-
277	**11.484**	0.139	291.69	3.53	11-1/2	1/8	28268	28776	27758	37050	37469	-	47608	27249	43390	-
688	-	-	297.80	6.99	-	-	28475	29007	27989	-	-	-	-	-	-	-
381	**11.975**	0.210	304.17	5.33	12	3/16	28348	28856	27838	37129	37549	-	47688	27329	43444	-
453	**11.975**	0.275	304.17	6.99	12	1/4	28391	28921	27903	37172	37605	-	47756	27372	43471	-
278	**11.984**	0.139	304.39	3.53	12	1/8	28269	28777	27759	37051	37470	-	47609	27250	43391	-
648	-	-	310.50	6.99	-	-	28483	28997	27979	-	-	-	-	-	-	-
454	**12.475**	0.275	316.87	6.99	12-1/2	1/4	28392	28923	27905	37173	37606	-	47757	27373	43472	-
649	-	-	323.20	6.99	-	-	28478	28998	27980	-	-	-	-	-	-	-
382	**12.975**	0.210	329.57	5.33	13	3/16	28349	28857	27839	37130	37550	-	47689	27330	43445	-
455	**12.975**	0.275	329.57	6.99	13	1/4	28393	28925	27907	37174	37607	-	47758	27374	43473	-
279	**12.984**	0.139	329.79	3.53	13	1/8	28270	28778	27760	37052	37471	-	47610	27251	43392	-
650	-	-	335.90	6.99	-	-	28479	28999	27981	-	-	-	-	-	-	-
456	**13.457**	0.275	342.27	6.99	13-1/2	1/4	28394	28927	27909	37175	37608	-	47759	27375	43474	-
383	**13.975**	0.210	354.97	5.33	14	3/16	28350	28858	27840	-	-	-	47690	27331	43446	-
457	**13.975**	0.275	354.97	6.99	14	1/4	28395	28928	27910	37176	37609	-	47760	27376	43475	-
280	**13.984**	0.139	355.19	3.53	14	1/8	28271	28779	27761	-	37472	-	47611	27252	43393	-
458	**14.475**	0.275	367.67	6.99	14-1/2	1/4	28396	28929	27911	-	37610	-	47761	27377	43476	-
384	**14.975**	0.210	380.37	5.33	15	3/16	28351	28859	27841	-	-	-	47691	-	-	-
459	**14.975**	0.275	380.37	6.99	15	1/4	28397	28930	27912	-	37611	-	47762	27378	43477	-
281	**14.984**	0.139	380.59	3.53	15	1/8	28272	28780	27762	-	37473	-	47612	27253	43394	-
460	**15.475**	0.275	393.07	6.99	15-1/2	1/4	28398	28931	27913	-	37612	-	47763	27379	43478	-
282	**15.955**	0.139	405.26	3.53	16	1/8	28273	28781	27763	-	37474	-	47613	27254	43395	-
385	**15.955**	0.210	405.26	5.33	16	3/16	28352	28860	27842	-	-	-	47692	-	43448	-
461	**15.955**	0.275	405.26	6.99	16	1/4	28399	28932	27914	-	37613	-	47764	27380	43479	-
462	**16.455**	0.275	417.96	6.99	16-1/2	1/4	28400	28933	27915	-	37614	-	47765	27381	43480	-
283	**16.955**	0.139	430.66	3.53	17	1/8	28274	28782	27764	-	37475	-	47614	27255	43396	-
386	**16.955**	0.210	430.66	5.33	17	3/16	28353	28861	27843	-	-	-	47693	-	43449	-
463	**16.955**	0.275	430.66	6.99	17	1/4	28401	28934	27916	-	37615	-	47766	27382	43481	-
464	**17.455**	0.275	443.36	6.99	17-1/2	1/4	28402	28935	27917	-	37616	-	47767	27383	43482	-

DIMENSIONS							MATERIALS							BACKUP		
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	N70	N90	VITON® 80	EPDM	SILICONE	PU90	NEOPRENE	BUCF (N90)	PTFE	HYTREL®
284	**17.955**	0.139	456.06	3.53	18	1/8	28275	28783	27765	-	37476	-	47615	27256	43397	-
387 [A]	**17.955**	0.210	456.06	5.33	18	3/16	28354	28862	27844	-	-	-	47694	-	43450	-
465	**17.955**	0.275	456.06	6.99	18	1/4	28403	28936	27918	-	37617	-	47768	27384	43483	-
466	**18.455**	0.275	468.76	6.99	18-1/2	1/4	28404	28937	27919	-	37618	-	47769	27385	43484	-
388	**18.955**	0.210	481.41	5.33	19	3/16	28355	28863	27845	-	-	-	47695	-	43451	-
467	**18.955**	0.275	481.46	6.99	19	1/4	28405	28938	27920	-	37619	-	47770	27386	43485	-
468	**19.455**	0.275	494.16	6.99	19-1/2	1/4	28406	28939	27921	-	37620	-	47771	27387	43486	-
389	**19.955**	0.210	506.81	5.33	20	3/16	28356	28864	27846	-	-	-	47696	-	43452	-
469	**19.955**	0.275	506.86	6.99	20	1/4	28407	28940	27922	37188	37621	-	47772	27388	43487	-
390	**20.955**	0.210	532.21	5.33	21	3/16	28357	28865	27847	-	-	-	47697	-	43453	-
470	**20.955**	0.275	532.26	6.99	21	1/4	28408	28941	27923	27923	37622	-	47773	27389	43488	-
391	**21.955**	0.210	557.61	5.33	22	3/16	28358	28866	27848	-	-	-	47698	-	43454	-
471	**21.955**	0.275	557.66	6.99	22	1/4	28409	28942	27924	-	37623	-	47774	27390	43489	-
392	**22.940**	0.210	582.68	5.33	23	3/16	28359	28867	27849	-	-	-	47699	-	43455	-
472	**22.940**	0.275	582.68	6.99	23	1/4	28410	28943	27925	-	37624	-	47775	27391	43490	-
393	**23.940**	0.210	608.08	5.33	24	3/16	28360	28868	27850	-	-	-	47700	-	-	-
473	**23.940**	0.275	608.08	6.99	24	1/4	28411	28944	27926	-	37625	-	47776	27392	-	-
394	**24.940**	0.210	633.48	5.33	25	3/16	28361	28869	27851	-	-	-	47701	-	-	-
474	**24.940**	0.275	633.48	6.99	25	1/4	28412	28945	27927	-	37626	-	47777	27393	-	-
395	**25.940**	0.210	658.88	5.33	26	3/16	28362	28870	27852	-	-	-	47702	-	-	-
475	**25.940**	0.275	658.88	6.99	26	1/4	28413	28946	27928	-	37627	-	47778	27394	-	-

[A] Also available in V80 Encap. PTFE - Part number 42713



Notes


spiral back-up rings

Design

O-Ring back-up rings are used as auxiliary or support elements to the o-rings. The main purpose of the o-ring backup is to prevent the ring extruding into the space between the two metal parts, compromising the seal. The virgin PTFE spiral o-ring backup is manufactured to have one full turn and two half turns.

Features

- Highly extrusion resistant material
- Wide temperature range
- Easy to use and to install

DIMENSIONS								
CODE	ACTUAL ID (in)	ACTUAL CS (in)	ACTUAL ID (mm)	ACTUAL CS (mm)	NOM Ref ID	NOM Ref CS	MATERIAL	PART #
010	**0.239**	0.070	6.07	1.78	1/4	1/16	PTFE	37631
012	**0.364**	0.070	9.25	1.78	3/8	1/16	PTFE	47053
113	**0.549**	0.103	13.94	2.62	9/16	3/32	PTFE	43225
211	**0.796**	0.139	20.22	3.53	13/16	1/8	PTFE	37759
117	**0.799**	0.103	20.30	2.62	13/16	3/32	PTFE	47159
212	**0.859**	0.139	21.82	3.53	7/8	1/8	PTFE	47052
218	**1.234**	0.139	31.34	3.53	1 1/4	1/8	PTFE	47106
223	**1.609**	0.139	40.87	3.53	1 5/8	1/8	PTFE	47151
224	**1.734**	0.139	44.04	3.53	1 3/4	1/8	PTFE	47817
133	**1.799**	0.103	45.69	2.62	1 13/16	3/32	PTFE	37724
228	**2.234**	0.139	56.74	3.53	2 1/4	1/8	PTFE	47111
234	**2.984**	0.139	75.79	3.53	3	1/8	PTFE	47050
244	**4.234**	0.139	107.54	3.53	4 1/4	1/8	PTFE	47141
350	**4.600**	0.210	116.84	5.33	4 5/8	3/16	PTFE	27298A

CUSTOM SEALS - ORDER FORM

pacific seals

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CUSTOM SEAL DESIGN AND MANUFACTURE

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Forma is our integrated on-demand, in house design and manufacture service, allowing us the flexibility to deliver custom seals for your time critical projects. With over 300 materials and sizes in stock, Forma is able to immediately get started on the design and manufacture virtually any seal to your exact requirements.
A state of the art CAD/CAM system from Seal-Maker International is the backbone of this service, and has been the trusted name in custom seal manufacturing since 1997.

Wipers

Profile	Type
	WR01
	WR01A
	WR02
	WR02A
	WR02B
	WR02C
	WR02D
	WR03
	WR04
	WR07
	WR08
	WR11
	WR12
	WR13
	WR13_E2
	WR14
	WR15
	WR17
	WR18

Customized seals

Profile	Profile

Rod seals

Profile	Type
	RS01
	RS01A
	RS01B
	RS01C
	RS02
	RS02A
	RS02B
	RS02C
	RS03
	RS04
	RS05
	RS08
	RS09
	RS09A
	RS09B
	RS91
	RS91B
	RS16
	RS17
	RS17A
	RS17B
	RS17C
	RS17D
	RS17E
	RS19
	RS19A
	RS20
	RS31-33
	RS35

Piston seals

Profile	Type
	PS01
	PS01A
	PS01B
	PS01C
	PS02
	PS02A
	PS03
	PS04
	PS05
	PS08
	PS08A
	PS08B
	PS08C
	PS08D
	PS08E
	PS08F
	PS81
	PS09
	PS09A
	PS16
	PS16A
	PS17
	PS17A
	PS17B
	PS19
	PS19A
	PS20
	PS23

Symmetrical seals

Profile	Type
	PRS06
	PRS06A
	PRS06B
	PRS06C
	PRS06D
	PRS06E
	PRS07
	PRS10SP
	PRS10-12
	PRS13-15
	PRS18
	PRS19
	PRS19B
	PRS19C
	PRS19D
	PRS22
	PRS25-27
	PRS99

Back-up rings

Profile	Type
	BUR08
	BUR09
	BUR10
	BUR11
	BUR12
	BUR13

Guide rings

Profile	Type
	BWR01
	BWR01A
	BWR03
	BWR04
	BWR05
	BWR06
	BWR07
	BWR08
	BWR09

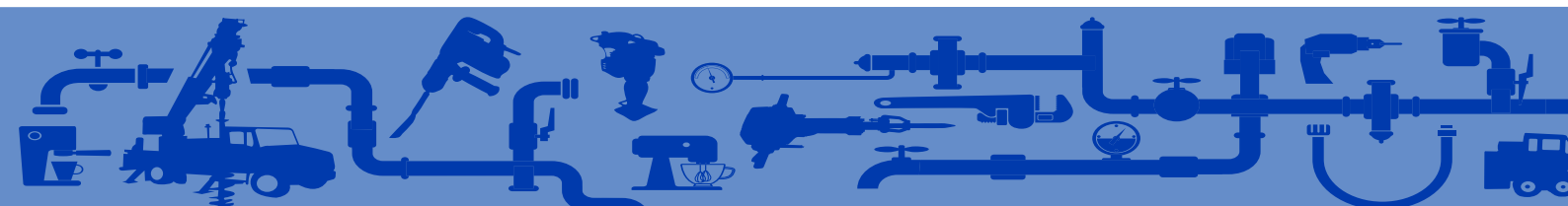
Static seals and O-rings

Profile	Type
	FL01A
	FL02B
	FL03
	FL06
	FL07
	OR
	ORH
	ORV
	QR01
	QR02
	SS01

Rotary seals

Profile	Type
	OS01
	OS02
	OS03
	OS08
	OS08A
	R03
	R04
	R04A
	R05
	R05A
	VR06
	VR07
	R08
	R08D
	R09
	R09A
	R10
	R10A
	R11

These profiles pictured are just some of our standard seal profiles. If you have a specific requirement, or require our specialised design input, please call us. We can help advise on the best profile and materials for your project.



FORMA

CUSTOM SEAL ORDER FORM

Scan or photocopy this page,
or contact us for an order pad

All measurements should be taken from metal.

Company: _____

Branch/Contact: _____

Order#: _____

REQUIRED INFO

Media: Oil - Water - Air - Brake Fluid / Glycol

Seal Profile: (refer back page) _____

Seal Type: (wiper, rod seal etc.) _____

Quantity: _____

Housing Type: **W** **X** **Y** **Z**

Metal Sizes:

OD _____ ID _____

A _____ B _____ C _____

D _____ E _____ F _____

G _____

Extra information

Speed: _____

Temperature Range: **°C**: _____

Material: _____

Pressure: _____

Are there pressure spikes **YES / NO**

Extrusion Gap:

Diameter gap between metal parts

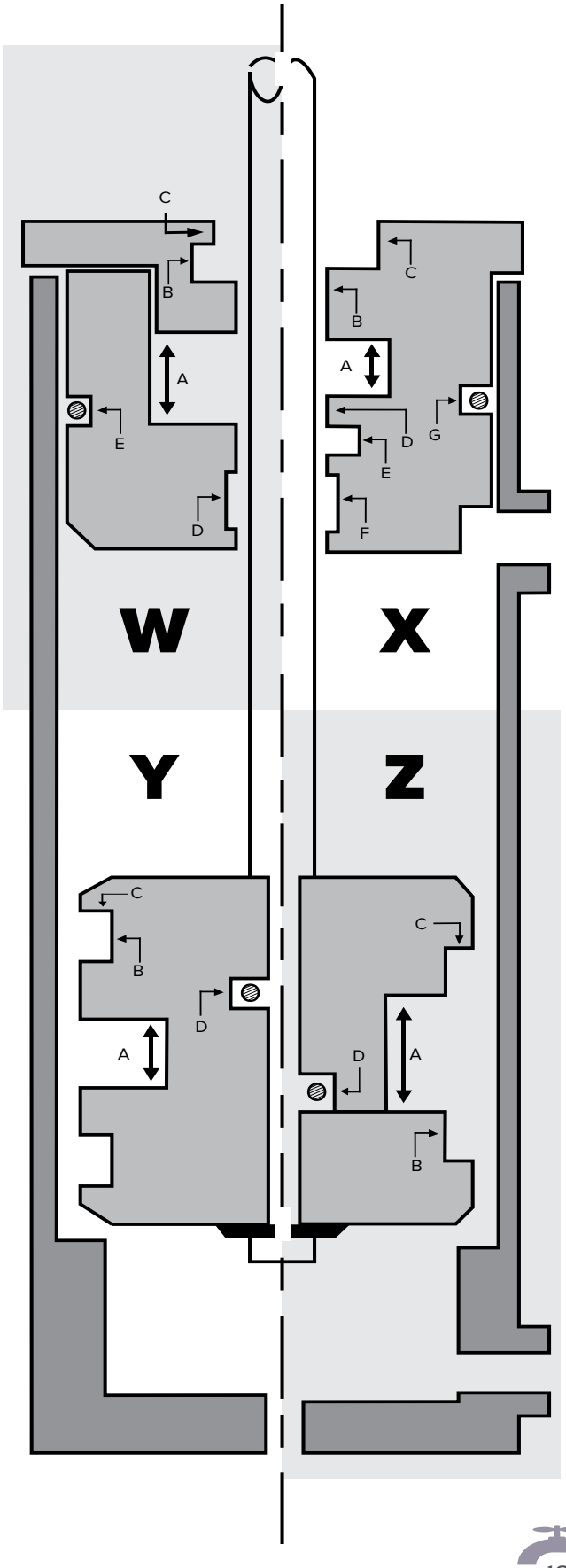
Rod & Gland: _____

Piston & Bore: _____

Friction and Holding: Is stiction a concern? **YES / NO**
Will the seal need to hold load for extended periods? **YES / NO**

Comments/ previous job or order#

_____



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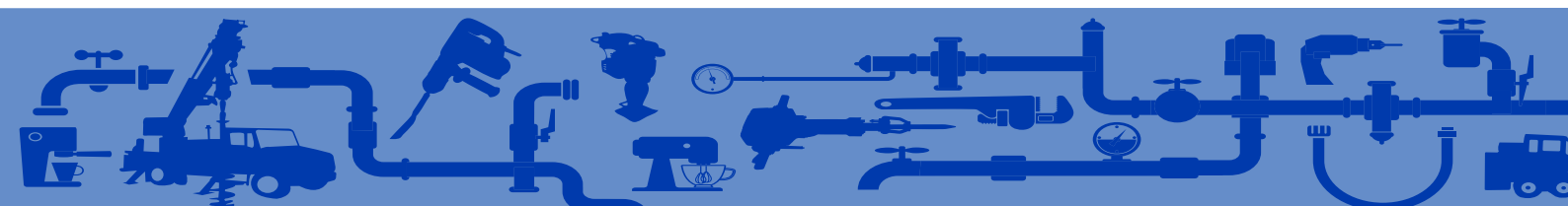

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