

CONCORDANCE - United States to International Patent Classification

U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	
U.S. CLASS 138 PIPES AND TUBULAR CONDUITS			71	D 03 C	1/00		D 03 D	45/50	433	D 03 D	47/46		B 21 F	27/10	
				D 03 C	1/06			45/02	434	D 03 D	47/48	113	B 21 F	15/02	
			72-73	D 03 C	1/00	263-268	D 03 D	45/50	435.1-435.6	D 03 D	47/30	114	B 21 F	15/04	
26	F 16 L	55/04	74	D 03 C	1/06	269-272	D 03 D	45/04		D 03 D	47/32	115-117	B 21 F	15/02	
27-28	E 03 B	7/10	75-76	D 03 C	1/00	273A	D 03 D	45/12	436	D 03 D	47/26	117-120	B 21 F	7/00	
30-31	F 16 L	55/04	77	D 03 C	1/12		D 03 D	51/34	437-439	D 03 D	47/24	118-120	B 21 F	15/04	
32-34	E 03 B	7/10	78-81	D 03 C	5/00	273R	D 03 D	45/08	440	D 03 D	47/02	121-122	B 21 F	15/02	
32-35	F 16 L	53/00	82-90	D 03 C	13/00		D 03 D	45/10		D 03 D	47/10	123	B 21 F		
35	E 03 B	7/14	91-92	D 03 C	9/06		D 03 D	51/34	441	D 03 D	47/04		B 25 B		
36	F 16 L	55/00	93-94	D 03 C	9/00	274-280	D 03 D	45/04	442	D 03 D	47/06		B 26 B		
37-46	F 15 D		95	D 03 C	9/04	281-286	D 03 D	45/08	443	D 03 D	47/12		H 01 R	43/033	
37	F 24 H	9/12	96	D 03 C	9/00	287-288	D 03 D	45/04	444	D 03 D	47/14	123.5-123.6	B 21 F	9/00	
38	F 28 F	13/12	97	D 03 D	49/00	289	D 03 D	45/00	445	D 03 D	47/16	123.5	B 25 B	25/00	
39	F 15 D	1/04	98	D 03 D	49/22	291C	D 03 J	1/08	446	D 03 D	47/18	123.6	B 21 F	11/00	
40	F 16 L	55/027	99-113	D 03 D	49/06	291R	D 03 D	35/00	447-448	D 03 D	47/20		B 21 F	99/00	
41	F 16 N	27/00	114-115	D 03 D	49/00		D 03 D	41/00	449	D 03 D	47/00	124	B 21 F	3/00	
42	F 16 L	55/027	116.1	D 03 D	49/50		D 03 D	49/20	450-451	D 03 D	47/34	139-140	B 21 F	11/00	
43	G 05 D	7/01	116.2	D 03 D	49/50	292-301	D 03 J	1/22	452	D 03 D	47/36		B 21 F	99/00	
44	G 01 F	1/42	116.5	D 03 D	15/00	302-303	D 03 D	49/70	453	D 03 D	47/38	139-147	B 21 F	1/02	
45-46	G 05 D	7/01	116.6	D 03 D	39/00	304-316	D 03 D	49/20	454	D 03 D	47/00	149	B 21 F	7/00	
89-92	F 16 L	55/10	116.6	D 03 D	39/20	317-332	D 03 D	49/00	455-456	D 03 C	13/00	150-154	B 21 F	99/00	
93	F 16 L	55/12	117-118	D 03 D	13/00		D 03 J	1/00	457-459	D 03 D	37/00				
94-95	F 16 L	55/10	119-121	D 03 D	21/00	333-334	D 03 C	1/22	460	D 03 D	41/00				
96R-96T	B 65 D	59/06	133	D 03 D	49/24		D 03 C	15/00							
96R	B 65 D	59/00	134	D 03 D	49/44	335	A 01 H	5/02	U.S. CLASS 140 WIREWORKING						
	F 16 L	57/00	135-140	D 03 D	35/00		D 03 C	15/00	1-2	B 21 F					
	F 16 L	55/18	141	D 03 D	49/46		D 03 J		1	H 02 G	1/12				
97	F 16 L	55/18	142-145	D 03 D	49/24	336	D 03 D	51/00	2	B 21 C	47/26				
98-99	F 16 L	55/16	146-152	D 03 D	49/26	336.4-336.6	D 03 D	51/34	3A	B 21 F	27/12				
100-102	F 16 L	13/00	153-154	D 03 D	49/40		D 03 D	51/20	3AA	B 21 F	27/00	1	B 65 B	1/04	
	F 16 L	9/22	155	D 03 D	49/48		D 03 D	51/18	3AB	B 21 F	31/00	1.1	H 01 M	4/82	
103-104	F 16 L	55/00	156	D 03 D	49/24	338-340	D 03 D	51/18	3BA	B 21 F	31/00	2-3	B 65 B	1/04	
105	F 16 L	1/00	157	D 03 D	49/38	341-347	D 03 D	51/40	3B	B 21 F	31/00		B 65 B	3/04	
106-107	F 16 L	3/00	158	D 03 D	49/24	348	D 03 D	51/18	3BA	B 21 F	31/00	4-8	B 65 B	31/00	
108	F 16 L	55/00	159-160	D 03 D	49/36	349-353	D 03 D	51/20	3C	B 21 F	17/00		B 67 C	3/00	
109-139	F 16 L	11/00	160R	D 03 D	49/24	354-358	D 03 D	51/28	3CA	B 21 F	27/00	9-10	B 65 B	1/04	
109	F 16 L	9/00	161F	D 03 D	49/36	359-367	D 03 D	51/20		B 21 F	27/00		B 65 B	3/04	
110	F 16 L	57/00		D 03 D	49/00	368	D 03 D	51/26	3R	B 21 F	33/04	11-12	B 65 B	1/20	
111-117	F 16 L	9/18		D 03 D	49/40		D 03 D	51/32		B 21 F	33/00	13-18	B 67 C	3/00	
140-153	F 16 L	9/14	170.3-170.7	D 03 D	43/10	369	D 03 D	51/20		B 21 F	33/04	13	B 65 B	1/04	
154	F 16 L	9/16		D 03 D	49/50	370.1-371	D 03 D	51/34		D 03 D	41/00		B 65 B	3/04	
155	F 16 L	9/22		D 03 D	43/00	372-379	D 03 D	51/36	4	B 21 F	27/04	18-20	B 65 B	31/00	
156-178	F 16 L	9/00		D 03 D	43/06		D 03 D	51/38	5	B 21 F	27/06	18	B 65 B	1/04	
			171	D 03 D	43/00	380	D 03 J	3/00	6-9	B 21 F	27/02		B 65 B	3/04	
			172	D 03 D	43/06	381-382	D 03 J	3/04	10	B 21 F	27/00	20	B 65 B	1/04	
			173-182	D 03 D	43/00	383A	D 03 D	25/00	11	B 21 F	27/08		B 65 B	3/04	
			183-184	D 03 D	49/52	383AA	D 03 D	25/00	12-13	B 21 F	27/00		B 67 C	3/00	
			185-186	D 03 D	49/54		D 21 F	1/00	14-15	B 21 F	27/02	20.5	B 65 B	29/00	
1A	D 03 D	49/60	187	D 03 D	49/56	383B	D 03 D	25/00	16	B 21 F	27/00	21-31	B 65 B	1/04	
	D 03 J	1/00	188A	D 03 D	49/60	383R	D 03 D	23/00	17-23	B 21 F	27/02		B 65 B	3/04	
	D 03 J	3/00		D 03 D	49/68	383R	D 03 D	25/00	24	B 21 F	27/00		B 65 B	31/00	
1B	D 03 D	51/18	188R	D 03 D	47/24		D 03 D	25/00	25-50	B 21 F	29/00		B 67 C	3/00	
	D 03 J	1/00		D 03 D	49/60	384A	D 03 D	1/08	51-57	B 21 F	33/00	32-33	H 01 M	4/72	
	D 06 H	3/04	189	D 03 D	49/62		D 03 D	3/00	58-70	B 21 F	25/00	34	B 65 B	1/14	
1C	D 01 H	11/00		D 03 D	49/62	384B	E 06 B	9/382			45/00	35-36	B 65 B	1/04	
	D 03 D	49/02	190-191	D 03 D	49/60		A 44 B	19/34	71B	B 21 F	27/12		B 67 C	3/00	
	D 03 J	1/00	192	D 03 D	49/62		A 44 B	19/54	72	B 21 F	45/08	35-64	B 65 B	31/00	
1D	D 03 D	49/44	193	D 03 D	49/58		D 03 D	3/00	73-74	B 21 F	45/16	65-66	B 65 B	31/04	
1E	D 03 D	51/00	194	D 03 D	41/00		D 03 D	3/00	73-75	B 21 F	1/06	67-68	B 65 B	1/08	
	D 03 D	51/02		D 03 J	5/00	387A	D 03 D	1/06	75	B 21 F	45/00		B 65 B	1/16	
	D 03 D	51/08	195	D 03 D	45/52		D 03 D	3/02	76	B 21 F	37/00		B 65 B	3/08	
1F	D 03 D	49/50	196.1	D 03 J	5/00	387R	D 03 D	11/02	77-81	B 21 F	45/00		B 65 B	3/10	
1R	D 03 D	49/02	196.2	D 03 J	5/06		D 03 D	3/00	81.5	B 21 F	45/02		B 67 C	3/02	
	D 03 D	51/00	196.3	D 03 J	5/00		D 03 D	3/02	82-84	B 21 F	45/16	69-82	B 65 B	1/20	
	D 03 J	1/00	196.4	D 03 J	5/04	388	D 03 D	3/02	85	B 21 F	45/04		B 65 B	1/28	
2	D 03 D	39/00	197	D 03 J	5/02	389-390	D 03 D	1/04	86	B 21 F	45/00		B 65 B	3/18	
3-6	D 03 D	27/14	198	D 03 J	5/08	391	D 03 D	27/00	87	B 21 G	7/04		B 65 B	3/22	
			199-201	D 03 D	35/00	392	D 03 D	27/04	88	B 21 F		83	B 65 B	1/30	
11	D 03 D	41/00	202	D 03 J	5/00	393	D 03 D	27/18		B 29 D	30/48		B 65 B	3/26	
14-16	D 03 D	37/00	203-205	D 03 D	51/40	394	D 03 D	27/10	89	B 21 F	35/00	84-113	B 67 C	3/02	
17-20	D 03 C	13/00	206-211	D 03 J	5/08	395	D 02 G	3/42	90-91	B 21 F	45/00	84-93	B 65 B	1/04	
21	D 03 D	39/16	212-219	D 03 J	5/00	396	D 03 D	27/08	90	B 21 F	27/12		B 65 B	3/04	
22-23	D 03 D	35/00	220-223	D 03 J	5/20	397-398	D 03 D	27/00	92	B 21 F	45/16	94-96	B 65 B	1/30	
24	D 03 D	19/00	224A	D 03 D	45/20		D 03 D	27/10	92.1-92.2	B 21 F	3/00		B 65 B	31/00	
25-27	D 03 D	39/22	224R	D 03 D	37/00		D 03 D	39/18	92.3-92.94	B 21 F	99/00	97-113	B 65 B	1/04	
28	D 03 D	13/00		D 03 D	45/20	399-401	D 03 D	27/12	93A	B 65 B	13/02		B 65 B	3/04	
29-34	D 03 D	29/00	225-229	D 03 D	45/02	402-406	D 03 D	27/06	93E	B 21 F	17/00	114	B 65 B	3/16	
35-36	D 03 C	13/00	230-231	D 03 D	45/18	407	D 03 D	23/00		B 21 F	45/04	115-127	B 65 B	1/04	
37-38	D 03 D	39/00	232A	D 03 D	45/34	408-415	D 03 D	11/00		B 21 F	45/00		B 65 B	3/04	
39-45	D 03 D	39/10	232B	D 03 D	45/32	416-419	D 03 D	23/00	93R	B 65 B	13/02		B 67 C</		

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U.S.			IPC			U.S.			IPC			U.S.			IPC		
Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation
U.S. CLASS 141--Con.																	
U.S. CLASS 141																	
FLUENT MATERIAL																	
HANDLING, WITH RECEIVER																	
OR RECEIVER COATING																	
MEANS																	
250-284	B 67 C	3/26	24.06	B 27 M	3/34	218-221	B 27 C	1/00				317	C 23 C	8/24			
	B 67 C	3/34	24.07	B 27 M	3/30		B 27 G	13/00					C 23 C	8/30			
285-296	B 65 B	1/04	24.08-24.09	B 27 M	3/22	218-241	B 27 C	5/00	U.S. CLASS 147			318	C 23 C	8/26			
	B 65 B	3/04	24.1-24.11	A 01 G	23/00	222-223	B 27 B	33/00	COOPERING				C 23 C	8/32			
	B 67 C	3/00	24.12	A 01 G	23/06	224-237	B 27 C	1/00	1	B 27 H	5/00	319	C 23 C	8/22			
	B 67 C	3/00	24.13	A 01 G	23/095		B 27 G	13/00	2-3	B 27 H	5/04	320	C 22 C	38/00			
	B 65 B	1/04	24.14	B 27 G	1/00	238-239	B 27 B	33/00	4-5	B 27 H	5/02	321	C 21 D	5/00			
	B 65 B	3/04	24.15	B 27 F	1/00	240-241	B 27 C	1/00	6	B 27 H	5/00	322	C 21 D	5/06			
	B 67 C	3/00	24.16	B 27 G	5/00		B 27 G	13/00	7-12	B 27 H	5/10	323-324	C 22 C	37/00			
297-300	B 65 B	39/00	24.17	B 27 J	1/00	242.1-244	B 27 B	31/00	13-17	B 27 H	5/08	324	C 22 C	37/06			
	B 67 C	11/00	24.18	B 27 M	3/12		B 27 C	1/12	18-23	B 27 H	3/02		C 22 C	38/36			
	B 65 B	1/04	24.19	B 27 M	1/00		B 27 C	5/02	24	B 27 H	5/08	325-327	C 22 C	38/18			
	B 65 B	3/04	24.22	B 27 M	3/20	245.1-245.7	B 27 B	31/00	25-35.5	B 27 H	3/02	325-328	C 22 C	38/00			
	B 67 C	3/00	24.23	B 27 M	3/24		B 27 C	1/12	36-41	B 27 H	3/04	329	C 22 C	38/04			
331-345	B 65 B	39/00	24.24	B 27 M	3/22		B 27 C	5/02	42	B 27 H	5/08	330-333	C 22 C	38/00			
	B 67 C	11/04	25	B 27 M	3/34	246.1-248.7	B 27 B	31/00	43-46	B 27 H	3/00	334	C 22 C	38/22			
	B 65 B	1/04	27	B 27 M	3/34		B 27 C	1/12	48	B 27 J	1/00	335	C 22 C	38/44			
	B 65 B	3/00	28	B 43 K	19/16		B 27 C	5/02	49	B 27 H	5/00	336	C 22 C	38/08			
	B 67 C	3/00	28.1-28.9	B 43 L	23/00	250.1-250.26	B 27 B	31/00				337	C 22 C	38/00			
	B 65 B	3/00	28.3-28.9	B 43 L	23/02		B 27 C	1/12	U.S. CLASS 148			400	C 22 C	11/00			
	B 67 C	3/00	29-33	B 27 M	3/00		B 27 C	5/02	METAL TREATMENT				C 22 C	12/00			
	B 67 C	3/00	30	B 27 M	3/28	251.1-251.3	B 27 G	19/00	22	B 23 K	35/22		C 22 C	20/00			
	B 67 C	3/00	34.1-34.6	A 01 G	23/08		B 27 G	21/00		B 23 K	30/00		C 22 C	24/00			
	B 67 C	3/00	35.1-35.2	B 27 B	5/00	252.1-252.2	B 27 G	19/00	23-26	B 23 K	35/34		C 22 C	25/00			
	B 67 C	3/00	36-49	B 27 C	9/00		B 27 G	21/00	27-30	B 23 K	35/24		C 22 C	28/00			
	B 67 C	3/00	49	B 27 C	1/00	253.1-253.91	B 27 B	31/00	33-33.1	H 01 L	29/00	401	C 22 C	7/00			
1-2	B 23 B	3/28		B 27 C	3/00		B 27 C	1/12	33.2	H 01 L	29/30	402-403	C 22 C	43/00			
3-4	B 27 C	5/00		B 27 C	5/00		B 27 C	5/02	33.3-33.4	H 01 L	29/12	402	C 22 C	1/00			
5-15	B 23 B	3/28		B 27 C	7/00	254-271	B 27 H	1/00	33.5	H 01 L	29/06	403	C 22 C	45/00			
17-20	B 27 C	5/00	50-66	B 05 C	1/00	278.1	B 27 B	1/00	33.6	H 01 L	29/12	404	C 22 C	27/06			
21-26	B 23 B	3/28		B 05 C	3/00		B 27 B	3/00	95-96	C 22 F		405	C 22 C	3/00			
	B 27 B	5/00		C 06 F	1/00	278.2	B 27 M	3/20	95	C 21 D		406	C 22 C	5/02			
27-28	B 23 B	5/00	67-68	B 27 F	5/10	278.3	B 27 B	1/00		C 22 C	1/00	407	C 22 C	23/00			
29-30	B 23 B	3/28	67-84	B 27 F	5/00		B 27 B	3/00	96	H 01 L	39/24	408	C 22 C	14/00			
	B 27 C	5/00	69-71	B 27 F	5/02		B 27 B	5/00	97	C 22 F	3/00	409	C 22 C	16/00			
31-32	B 23 B	5/00	72-73	B 27 F	1/00	284	B 27 B	5/00	98-99	C 21 D		410	C 22 C	27/00			
33-35	B 23 B	3/28	74	B 27 F	5/02	285	B 27 H	5/00	98	H 01 L	39/24	411	C 22 C	19/07			
	B 27 C	5/00	75-81	B 27 F	5/10	286.1-287	B 25 H	1/00	99	C 22 F	5/28	412	C 22 C	19/03			
36	B 23 B	3/00	82-83	B 27 F	5/02	288.5-308	B 25 H	5/00	100-105	H 01 F	1/03	413	C 22 C	9/02			
37-39	B 23 B	3/28	85-89	B 27 F	1/00	329-330	B 27 M	3/00	108	C 21 D	1/04	414	C 22 C	9/04			
	B 27 C	5/00	90.1-91	B 27 F	1/00	329	B 27 M	1/00		H 01 F	1/04	415	C 22 C	9/06			
40	B 23 B	5/00	90.1-91.2	B 27 M	1/00	331	B 27 M	1/00	110-113	H 01 F	1/00	416	C 22 C	21/00			
41	B 23 B	3/28	92	B 27 C	3/00	332	B 27 D	1/04	120-122	H 01 F	1/00	417-418	C 22 C	21/12			
	B 27 C	5/00	93.1	B 27 M	3/00		B 27 G	1/00	194-205	B 23 K	7/00		C 22 C	21/06			
42	B 23 B	5/00	93.2	B 27 M	3/20	333	B 27 J	7/00	206-221	C 23 C	8/00	419	C 22 C	30/00			
43-44	B 23 B	3/28	96	B 27 M	3/00	334	B 27 J	7/00	206-238	C 23 C	22/00	420	C 22 C	23/00			
	B 27 C	5/00	97-108	B 27 H	7/00	335-339	A 01 G	23/08	222	C 23 C	8/36	421	C 22 C	14/00			
45-46	B 23 B	3/00	114.1-116	B 27 C	1/00	339	A 01 G	23/087	223-229	C 23 C	8/00	422	C 22 C	16/00			
47	B 27 C	7/00	117.1-118	B 27 C	1/00	340-341	A 01 G	23/087	230-231	C 23 C	8/26	423	C 22 C	27/06			
48-49	B 27 C	7/06	119.1-126	B 27 C	1/00	340-343	B 27 L	1/00	232-237	C 23 C	8/00	424	C 22 C	27/02			
50	B 27 C	7/00	127.1-132	B 27 C	1/00	343	B 27 L	1/00	238	C 23 C	8/48	425	C 22 C	27/04			
51-52	B 23 B	3/28	133.1-133.3	B 27 C	5/00	344	A 01 G	23/095	239	C 23 C	8/36	426	C 22 C	27/06			
	B 27 C	5/00	134.1	B 27 C	5/00	345	B 27 D	1/00	240-241	C 23 C	22/00	427	C 22 C	22/00			
53-54	B 27 C	7/04	134.2-134.3	B 27 M	3/20		B 27 F	7/00		C 23 C	8/00	428	C 22 C	22/00			
55	B 27 C	7/00	135	B 27 M	3/34	346-355	B 27 F	1/00	242	C 23 C	22/70	429	C 22 C	19/05			
56	B 23 B	27/00	135.2-135.4	B 27 C	5/00		B 27 F	5/00	243	C 23 C	22/00	430	C 22 C	19/03			
57	B 27 C	7/04	136.1	B 27 C	5/00		B 27 F	1/00	244	C 23 C	22/84	431	C 22 C	5/00			
	B 27 C	7/04	136.2-136.3	B 27 M	3/00		B 27 F	1/00	245-246	C 23 C	22/00	432	C 22 C	5/06			
	B 27 C	7/04	136.4	B 27 M	3/38	346-355	B 27 D	1/00	247	C 23 C	10/00	433	C 22 C	9/00			
	B 27 C	7/04	136.5	B 27 M	3/00		B 27 G	11/00	248-249	C 23 C	22/48	434	C 22 C	9/02			
	B 27 C	7/04	136.6	B 27 M	3/12	347	B 27 F	1/00	250-252	C 23 C	22/02	435	C 22 C	9/04			
	B 27 C	7/04	136.7	B 27 C	5/00	348	B 27 F	1/00	253	C 23 C	22/00	436	C 22 C	9/06			
	B 27 C	7/04	136.8	B 27 M	3/16	349	B 27 F	1/00	254	C 23 C	22/07	437	C 22 C	9/01			
	B 27 C	7/04	136.9	B 27 C	5/00	350	B 27 F	1/00	255-257	C 23 C	28/00	438	C 22 C	21/12			
	B 27 C	7/04	136.95	B 27 C	5/10	351	B 27 F	1/00	258	C 23 C	22/82	439-440	C 22 C	21/06			
	B 27 C	7/04	137-143	B 27 C	5/00	352	B 27 F	1/00	259-263	C 23 C	22/33	441	C 22 C	18/00			
	B 27 C	7/04	144.1	B 27 C	5/00	353-357	B 27 G	5/00	261-268	C 23 C	22/07	442	C 22 C	30/00			
	B 27 C	7/04	144.2	B 27 M	3/00		B 27 G	15/00	264	C 23 C	22/24	500-511	C 21 D	11/00			
	B 27 C	7/04	144.3	B 27 M	3/10		B 27 G	16/00	265	C 23 C	22/82	508-511	C 21 D	1/54			
	B 27 C	7/04	144.4	B 27 M	3/22	358-360	B 27 H	1/00	266-268	C 23 C	22/24	512	C 21 D	5/00			
	B 27																