



**No. 496 Oil Hardening
Standard**

**No. 495 Oil Hardening
Oversize**

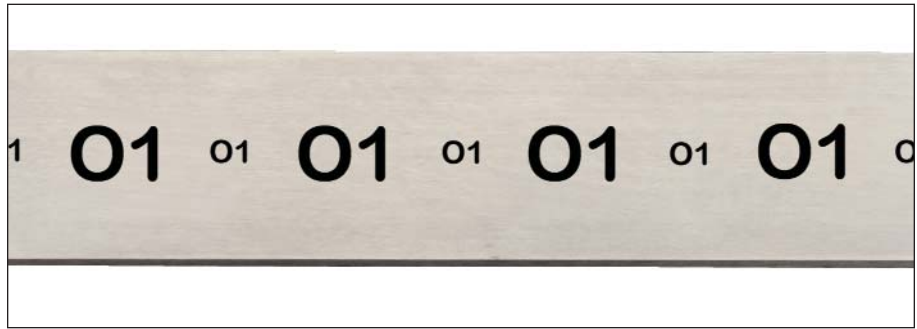
- ◆ Stock is dimensionally stable – use it for the most intricate work
- ◆ Deep hardening characteristics and fine grain structure
- ◆ Machines freely – fully spheroidized, annealed
- ◆ Full length identification – eliminates confusion with other steels
- ◆ The Starrett Company uses its own ground flat stock and die stock for many of its fine precision tool parts

Specifications

Furnished in 18" and 36" lengths, ground straight and parallel.

Nominal Analysis (AISI 01)

Carbon90
Chromium50
Manganese	1.20
Tungsten50
Vanadium20



Hardening

It is recommended that stock be heated uniformly to 1450°-1500° F and quenched in oil. Temperature of the quenching oil should be 120°-140° F for best results. Do not quench in water because this is an oil hardening steel.

Size	Temperature	Quench	Rockwell C
All Sizes	1450°-1500° F	Oil	63-65

Tempering

For maximum toughness, a tempering time of one hour at temperature is recommended. Use chart for selecting desired Rockwell C hardness and corresponding tempering temperature. The following table may also be used as a guide depending on type of work.

Cutting Tools

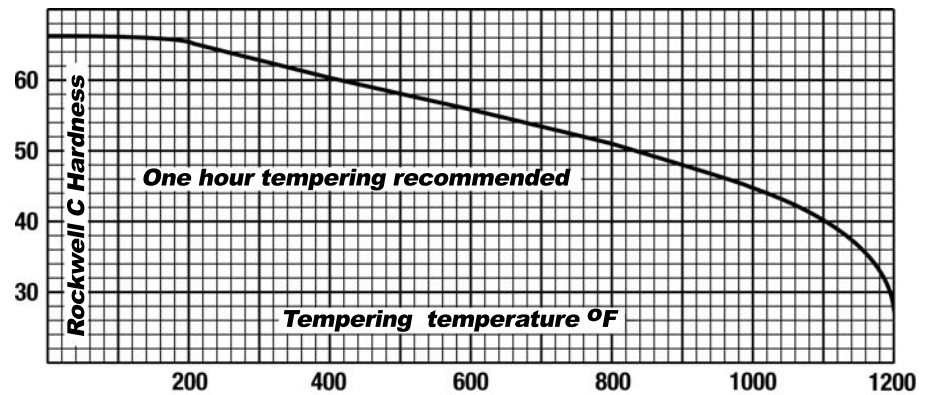
- ◆ 300°-350° F (Light Straw)

Solid Punches and Dies

- ◆ 400°-450° F (Straw)

Spring Temper

- ◆ 750°-800° F (Blue)



NOTE: Lengths, widths and thicknesses other than what are listed can also be quoted by request.



No. 496 Oil Hardening (Standard Tolerance) 18" and 36" Lengths (continued)

Thickness	Width	18" Length EDP No.	36" Length EDP No.
9/32"	9/32"	54090	
	1/2"	54091	
	3/4"	54092	
	1"	54093	
	1-1/4"	54094	
	1-1/2"	54095	
	2"	54096	
	2-1/2"	54097	
	3"	54098	
	4"	54099	
6"	54100	54390	
5/16"	5/16"	54101	54391
	3/8"	57232	
	1/2"	54102	54392
	5/8"		58896
	3/4"	54103	54393
	1"	54104	54394
	1-1/4"	54105	54395
	1-1/2"	54106	54396
	1-3/4"	57233	57240
	2"	54107	54397
	2-1/2"	54108	54398
	3"	54109	54399
	3-1/2"	54110	54400
	4"	54111	54401
	4-1/2"	54112	54402
5"	54113	54403	
6"	54114	54404	
8"	54115	54405	
3/8"	3/8"	54116	54406
	1/2"	54117	54407
	5/8"		58898
	3/4"	54118	54408
	1"	54119	54409
	1-1/4"	54120	54410
	1-1/2"	54121	54411
	1-3/4"	54122	54412
	2"	54123	54413
	2-1/2"	54124	54414
	3"	54125	54415
	3-1/2"	54126	54416
	4"	54127	54417
	4-1/2"	54128	54418
	5"	54129	54419
5-1/2"	54130	54420	
6"	54131	54421	
7"	54132	54422	
8"	54133	54423	
10"	54134	54424	
12"	54135	54425	
7/16"	7/16"	54136	54426
	1/2"	54137	54427
	3/4"	54138	54428
	1"	54139	54429
	1-1/4"	54140	54430
	1-1/2"	54141	54431
	2"	54142	54432
	2-1/2"	54143	54433
	3"	54144	54434
	4"	54145	54435
6"	54146	54436	

Thickness	Width	18" Length EDP No.	36" Length EDP No.
1/2"	1/2"	54147	54437
	5/8"	54148	54438
	3/4"	54149	54439
	1"	54150	54440
	1-1/4"	54151	54441
	1-1/2"	54152	54442
	1-3/4"	57234	57241
	2"	54153	54443
	2-1/2"	54154	54444
	3"	54155	54445
	3-1/2"	54156	54446
	4"	54157	54447
	4-1/2"	54158	54448
	5"	54159	54449
	6"	54160	54450
7"	54161	54451	
8"	54162	54452	
10"	54163	54453	
12"	54164	59159	
14"	54165		
9/16"	9/16"	54166	54455
	3/4"	54167	54456
	1"	54168	54457
	1-1/4"	54169	54458
	1-1/2"	54170	54459
2"	54171	54460	
5/8"	5/8"	54172	54461
	3/4"	54173	54462
	1"	54174	54463
	1-1/4"	54175	54464
	1-1/2"	54176	54465
	2"	54177	54466
	2-1/2"	54178	54467
	3"	54179	54468
	3-1/2"	54180	54469
	4"	54181	54470
	5"	54182	54471
	6"	54183	54472
8"	54185	54474	
10"	54186	54475	
12"	57235	57242	
3/4"	3/4"	54187	54476
	1"	54188	54477
	1-1/4"	54189	54478
	1-1/2"	54190	54479
	2"	54191	54480
	2-1/2"	54192	54481
	3"	54193	54482
	3-1/2"	54194	54483
	4"	54195	54484
	4-1/2"	54196	54485
	5"	54197	54486
	6"	54198	54487
	8"	54199	54488
	10"	54200	54489
	12"	54201	54490

Thickness	Width	18" Length EDP No.	36" Length EDP No.
7/8"	7/8"	54202	54491
	1"	54203	54492
	1-1/4"	54204	54493
	1-1/2"	54205	54494
	2"	54206	54495
	2-1/2"	54207	54496
	3"	54208	54497
	4"	54209	54498
6"	54210	54499	
1"	1"	54211	54500
	1-1/4"	54212	54501
	1-1/2"	54213	54502
	2"	54214	54503
	2-1/2"	54215	54504
	3"	54216	54505
	3-1/2"	54217	54506
	4"	54218	54507
	4-1/2"	54219	54508
	5"	54220	54509
	6"	54221	54510
	8"	54222	54511
10"	54223	54512	
12"	54224	54513	
1-1/8"	1-1/2"	54225	54514
	2"	54226	54515
	3"	54227	54516
	4"	54228	54517
6"	54229	54518	
1-1/4"	1-1/4"	54230	54519
	1-1/2"	54231	54520
	2"	54232	54521
	2-1/2"	54233	54522
	3"	54234	54523
	4"	54235	54524
	5"	54236	54525
	6"	54237	54526
	8"	54238	54527
	10"	54239	54528
1-1/2"	1-1/2"	54240	54529
	2"	54241	54530
	2-1/2"	54242	54531
	3"	54243	54532
	3-1/2"	54244	54533
	4"	54245	54534
	5"	54246	54535
	6"	54247	54536
	8"	54248	54537
	10"	54249	54538
12"	59189		
2"	2"	54250	54539
	3"	54251	54540
	4"	54252	54541
	6"	54253	54542

NOTE: Prices on application for other lengths, widths and thicknesses.

(Continued on next page.)



No. 496 Oil Hardening (Standard Tolerance) 18" and 36" Lengths

Thickness	Width	18" Length EDP No.	36" Length EDP No.
1/64"	1/2"	53924	59139
	3/4"	53925	
	1"	53926	
	1-1/4"	53927	
	1-1/2"	53928	
	2"	53929	59140
	2-1/2"	53930	
	3"	53931	
	4"	53932	59141
	1/32"	1/2"	53933
3/4"		53934	59143
1"		53935	59144
1-1/4"		53936	
1-1/2"		53937	59145
2"		53938	58901
2-1/2"		53939	
3"		53940	59147
4"		53941	59148
6"		53942	
3/64"	1/2"	53943	59149
	3/4"	53944	59150
	1"	53945	58902
	1-1/4"	53946	59171
	1-1/2"	53947	57685
	2"	53948	59152
	2-1/2"	53949	
	3"	53950	
	3-1/2"	53951	
	6"	53952 53953	59153
1/16"	1/4"	57226	58891
	3/8"	57227	
	1/2"	53954	54257
	3/4"	53955	54258
	1"	53956	54259
	1-1/4"	53957	54260
	1-1/2"	53958	54261
	1-3/4"	53959	54262
	2"	53960	54263
	2-1/2"	53961	54264
	3"	53962	54265
	3-1/2"	53963	54266
	4"	53964	54267
	5"	53965	54268
	6"	53966	54269
	8"	53967	57236
10"	53968	57237	
5/64"	1/2"	53969	54270
	3/4"	53970	58905
	1"	53971	58890
	1-1/2"	53972	
	2"	53973	
	2-1/2"	53974	
	3"	53975	
	6"	53976 53977	

Thickness	Width	18" Length EDP No.	36" Length EDP No.	
3/32"	1/4"		58899	
	3/8"	58903		
	1/2"	53978	54279	
	3/4"	53979	54280	
	1"	53980	54281	
	1-1/4"	53981	54282	
	1-1/2"	53982	54283	
	2"	53983	54284	
	2-1/2"	53984	54285	
	3"	53985	54286	
	4"	53986	54287	
	5"	53987	54288	
	6"	53988	54289	
	8"	53989	57682	
	7/64"	1/2"	53990	
		3/4"	53991	
1"		53992		
1-1/4"		53993		
1-1/2"		53994		
2"		53995		
3"		53996		
4"		53997		
1/8"	1/8"	53998	59154	
	1/4"	57228	58894	
	5/16"	59127	58897	
	3/8"	57229	58892	
	1/2"	53999	54298	
	5/8"	54000	54299	
	3/4"	54001	54300	
	1"	54002	54301	
	1-1/4"	54003	54302	
	1-1/2"	54004	54303	
	1-3/4"	54005	54304	
	2"	54006	54305	
	2-1/2"	54007	54306	
	3"	54008	54307	
	3-1/2"	54009	54308	
	4"	54010	54309	
4-1/2"	54011	54310		
5"	54012	54311		
6"	54013	54312		
7"	54014	54313		
8"	54015	54314		
10"	54016	54315		
12"	54017	54316		
14"	54018	57238		
9/64"	9/64"	54019		
	1/2"	54020		
	3/4"	54021		
	1"	54022		
	1-1/2"	54023		
	2"	54024		
	3"	54025		
	4"	54026		
5/32"	5/32"	54027		
	1/2"	54028	54324	
	3/4"	54029	54325	
	1"	54030	54326	
	1-1/4"	54031	54327	
	1-1/2"	54032	54328	

Thickness	Width	18" Length EDP No.	36" Length EDP No.
5/32" (Cont.)	1-3/4"	54033	54329
	2"	54034	54330
	2-1/2"	54035	54331
	3"	54036	54332
	3-1/2"	54037	54333
	4"	54038	54334
	5"	54039	54335
	6"	54040	54336
	8"	54041	54337
3/16"	3/16"	54042	59157
	1/4"	57230	
	3/8"	57231	
	1/2"	54043	54338
	3/4"	54044	54339
	1"	54045	54340
	1-1/4"	54046	54341
	1-1/2"	54047	54342
	1-3/4"	54048	54343
	2"	54049	54344
	2-1/2"	54050	54345
3"	54051	54346	
3-1/2"	54052	54347	
4"	54053	54348	
5"	54054	54349	
6"	54055	54350	
8"	54056	54351	
10"	54057	54352	
7/32"	7/32"	54058	
	1/2"	54059	54353
	3/4"	54060	54354
	1"	54061	54355
	1-1/4"	54062	54356
	1-1/2"	54063	54357
	2"	54064	54358
	3"	54065	54359
4"	54066	54360	
6"	54067		
1/4"	1/4"	54068	56517
	3/8"	54069	58900
	1/2"	54070	54362
	5/8"	58904	58893
	3/4"	54071	54363
	1"	54072	54364
	1-1/4"	54073	54365
	1-1/2"	54074	54366
	1-3/4"	54075	54367
	2"	54076	54368
	2-1/2"	54077	54369
	3"	54078	54370
	3-1/2"	54079	54371
	4"	54080	54372
	4-1/2"	54081	54373
	5"	54082	54374
5-1/2"	54083	54375	
6"	54084	54376	
7"	54085	54377	
8"	54086	54378	
10"	54087	54379	
12"	54088	54380	
14"	54089	57239	

NOTE: Prices on application for other lengths, widths and thicknesses.

(Continued on next page.)



No. 495 Oil Hardening (Oversize Tolerance) 18" and 36" Lengths

Thickness	Width	18" Length EDP No.	36" Length EDP No.
3/16"	3/16"	56957	57677
	1/2"	56958	56813
	3/4"	56959	56814
	1"	56960	56815
	1-1/4"	56961	56816
	1-1/2"	56962	56817
	2"	56963	56818
	2-1/2"	56964	56819
	3"	56965	56820
	4"	56966	56821
1/4"	1/4"	56971	57678
	1/2"	56972	56823
	3/4"	56973	56824
	1"	56974	56825
	1-1/4"	56975	56826
	1-1/2"	56976	56827
	1-3/4"	56977	
	2"	56978	56828
	2-1/2"	56979	56829
	3"	56980	56830
5/16"	5/16"	56987	56835
	1/2"	56988	56836
	3/4"	56989	56837
	1"	56990	56838
	1-1/4"	56991	56839
	1-1/2"	56992	56840
	2"	56993	56841
	2-1/2"	56994	56842
3/8"	3/8"	56995	56843
	4"	56996	56844
	5"	56997	56845
	6"		
	8"		
	10"		
	12"		
	14"		
	16"		
	18"		

Thickness	Width	18" Length EDP No.	36" Length EDP No.
3/8"	3/8"	56998	56846
	1/2"	56999	56847
	3/4"	57000	56848
	1"	57001	56849
	1-1/4"	57002	56850
	1-1/2"	57003	56851
	2"	57004	56852
	2-1/2"	57005	56853
	3"	57006	
	3-1/2"	57007	56854
1/2"	4"	57008	56855
	4-1/2"	57009	56856
	5"	57010	56857
	6"	57011	
	8"	57012	
	12"	57013	
	1/2"	57014	56858
	3/4"	57015	56859
	1"	57016	56860
	1-1/4"	57017	56861
1-1/2"	57018	56862	
5/8"	2"	57019	56863
	2-1/2"	57020	56864
	3"	57021	56865
	3-1/2"	57022	
	4"	57023	56866
	4-1/2"	57024	
	5"	57025	56867
	6"	57026	56868
	8"	57027	56869
	10"	57028	56870

Thickness	Width	18" Length EDP No.	36" Length EDP No.
5/8"	5/8"	57030	56871
	3/4"	57031	56872
	1"	57032	56873
	1-1/4"	57033	56874
	1-1/2"	57034	56875
	2"	57035	56876
	2-1/2"	57036	56877
	3"	57037	
	3-1/2"	57038	56878
	4"	57039	56879
3/4"	5"	57040	56880
	6"	57041	
	3/4"	57042	56881
	1"	57043	56882
	1-1/4"	57044	
	1-1/2"	57045	56883
	2"	57046	56884
	2-1/2"	57047	56885
	3"	57048	56886
	3-1/2"	57049	
1"	4"	57050	56887
	5"	57051	
	6"	57052	56888
	8"	57053	
	1"	57054	56889
	1-1/4"	57055	56890
	1-1/2"	57056	56891
	2"	57057	56892
	2-1/2"	57058	56893
	3"	57059	
3-1/2"	57060	56894	
1"	4"	57061	
	5"	57062	56895
	6"	57063	

NOTE: Prices on application for other lengths, widths and thicknesses.