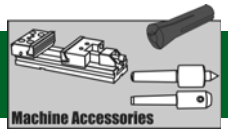


Machine Accessories



R8 END MILL HOLDERS

For single and double end mills (* for single end mills only).



Inch			
Hole Dia.	Model No.	Hole Dia.	Model No.
3/16"	210-0102	3/4"	*210-0110
1/4"	210-0103	7/8"	*210-0112
5/16"	210-0104	1"	*210-0114
3/8"	210-0105	1-1/8"	*210-0115
7/16"	210-0106	1-1/4"	*210-0116
1/2"	210-0107	1-1/2"	*210-0118
5/8"	210-0108	2"	*210-0120

Metric			
Hole Dia.	Model No.	Hole Dia.	Model No.
4mm	210-1104	14mm	210-1114
5mm	210-1105	16mm	210-1116
6mm	210-1106	18mm	210-1118
7mm	210-1107	20mm	210-1120
8mm	210-1108	22mm	210-1122
10mm	210-1110	25mm	*210-1125
12mm	210-1112	27mm	*210-1127

Sets

No. Of Pieces	Specifications	Model No.
5	3/16, 3/8, 1/2, 5/8, 3/4"	210-0305
8	3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4"	210-0308
9	3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4, 1-1/2"	210-0309

MT END MILL HOLDER -TANG TYPE

For single and double end mills

(* for single end mills only).



Shank Hole			Shank Hole			Shank Hole			Shank Hole		
Taper	Dia.	Model No.	Taper	Dia.	Model No.	Taper	Dia.	Model No.	Taper	Dia.	Model No.
MT2	3/16"	219-2012	MT3	5/8"	*219-3017	MT4	1"	*219-4020	MT5	1-1/4"	*219-5021
MT2	1/4"	219-2013	MT3	3/4"	*219-3018	MT4	1-1/4"	*219-4021	MT5	1-1/2"	*219-5022
MT2	5/16"	219-2014	MT3	7/8"	*219-3019	MT4	1-1/2"	*219-4022	MT5	2"	*219-5024
MT2	3/8"	219-2015	MT3	1"	*219-3020	MT5	3/16"	219-5012	MT5	2-1/2"	*219-5025
MT2	1/2"	*219-2016	MT4	3/16"	219-4012	MT5	1/4"	219-5013	MT6	7/8"	219-6019
MT2	5/8"	*219-2017	MT4	1/4"	219-4013	MT5	5/16"	219-5014	MT6	1"	219-6020
MT2	3/4"	*219-2018	MT4	5/16"	219-4014	MT5	3/8"	219-5015	MT6	1-1/4"	*219-6021
MT3	3/16"	219-3012	MT4	3/8"	219-4015	MT5	1/2"	219-5016	MT6	1-1/2"	*219-6022
MT3	1/4"	219-3013	MT4	1/2"	219-4016	MT5	5/8"	219-5017	MT6	2"	*219-6024
MT3	5/16"	219-3014	MT4	5/8"	219-4017	MT5	3/4"	219-5018	MT6	2-1/2"	*219-6025
MT3	3/8"	219-3015	MT4	3/4"	219-4018	MT5	7/8"	219-5019			
MT3	1/2"	219-3016	MT4	7/8"	*219-4019	MT5	1"	219-5020			

MT END MILL HOLDER - DRAWBAR END TYPE

For single and double end mills

(* for single end mills only).



Shank Hole			Shank Hole			Shank Hole			Shank Hole		
Taper	Dia.	Model No.	Taper	Dia.	Model No.	Taper	Dia.	Model No.	Taper	Dia.	Model No.
MT2	3/16"	219-2112	MT3	1/2"	219-3116	MT4	1-1/4"	*219-4121	MT6	3/8"	219-6115
MT2	1/4"	219-2113	MT3	5/8"	*219-3117	MT4	1-1/2"	*219-4122	MT6	1/2"	219-6116
MT2	5/16"	219-2114	MT3	3/4"	*219-3118	MT5	3/8"	219-5115	MT6	5/8"	219-6117
MT2	3/8"	219-2115	MT3	7/8"	*219-3119	MT5	1/2"	219-5116	MT6	3/4"	219-6118
MT2	1/2"	*219-2116	MT3	1"	*219-3120	MT5	5/8"	219-5117	MT6	7/8"	*219-6119
MT2	5/8"	*219-2117	MT4	3/8"	219-4115	MT5	3/4"	219-5118	MT6	1"	*219-6120
MT2	3/4"	*219-2118	MT4	1/2"	219-4116	MT5	7/8"	219-5119	MT6	1-1/4"	*219-6121
MT3	3/16"	219-3112	MT4	5/8"	219-4117	MT5	1"	219-5120	MT6	1-1/2"	*219-6122
MT3	1/4"	219-3113	MT4	3/4"	219-4118	MT5	1-1/4"	*219-5121	MT6	2"	*219-6124
MT3	5/16"	219-3114	MT4	7/8"	*219-4119	MT5	1-1/2"	*219-5122	MT6	2-1/2"	*219-6126
MT3	3/8"	219-3115	MT4	1"	*219-4120	MT5	2"	*219-5124			

30-40-50 TAPER END MILL HOLDERS

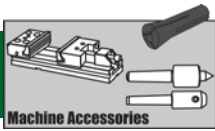
For single and double end mills

(* for single end mills only).



Hole Dia.	Inch			
	30	40	50	
3/16"	210-3012	210-4012		
5/16"	210-3015	210-4015		
3/8"	210-3024	210-4024	210-5024	
1/2"	210-3032	210-4032	210-5032	
5/8"	210-3040	210-4040	210-5040	
3/4"	210-3048	210-4048	210-5048	
7/8"	*210-3056	210-4056	210-5056	
1"	*210-3064	*210-4064	210-5064	
1-1/4"	*210-3066	*210-4066	*210-5066	
1-1/2"		*210-4068	*210-5068	
2"		*210-4070	*210-5070	
2-1/2"			*210-5072	

Hole Dia.	Metric		
	30	40	50
6mm	210-3306		
8mm	210-3308	210-4308	210-5308
10mm	210-3310	210-4310	210-5310
12mm	210-3312	210-4312	210-5312
13mm	210-3313	210-4313	210-5313
14mm	210-3314	210-4314	210-5314
16mm	210-3316	210-4316	210-5316
18mm	210-3318	210-4318	210-5318
19mm	210-3319	210-4319	210-5319
20mm	210-3320	210-4320	210-5320
22mm	*210-3322	210-4322	210-5322
25mm	*210-3325	*210-4325	210-5325
32mm	*210-3332	*210-4332	*210-5332
40mm		*210-4340	*210-5340
50mm			*210-5350
63mm			*210-5363



Machine Accessories

MT SHELL END MILL HOLDER -TANG END



Inch						Metric					
Shank Hole			Shank Hole			Shank Hole			Shank Hole		
Taper	Size	Model No.	Taper	Size	Model No.	Taper	Size	Model No.	Taper	Size	Model No.
MT2	1/2"	219-2032	MT4	7/8"	219-4056	MT2	13mm	219-1213	MT4	27mm	219-1427
MT2	5/8"	219-2040	MT4	1"	219-4100	MT2	16mm	219-1216	MT4	32mm	219-1432
MT2	3/4"	219-2048	MT4	1-1/4"	219-4106	MT2	22mm	219-1222	MT4	40mm	219-1440
MT3	1/2"	219-3032	MT4	1-1/2"	219-4132	MT3	16mm	219-1316	MT5	16mm	219-1516
MT3	5/8"	219-3040	MT5	1/2"	219-5032	MT3	22mm	219-1322	MT5	22mm	219-1522
MT3	3/4"	219-3048	MT5	5/8"	219-5040	MT3	27mm	219-1327	MT5	27mm	219-1525
MT3	7/8"	219-3056	MT5	3/4"	219-5048	MT3	32mm	219-1332	MT5	32mm	219-1532
MT3	1"	219-3064	MT5	7/8"	219-5056	MT4	16mm	219-1416	MT5	40mm	219-1540
MT3	1-1/4"	219-3066	MT5	1"	219-5100	MT4	22mm	219-1422	MT5	50mm	219-1550
MT4	1/2"	219-4032	MT5	1-1/4"	219-5106						
MT4	5/8"	219-4040	MT5	1-1/2"	219-5132						
MT4	3/4"	219-4048	MT5	2"	219-5200						

MT SHELL END MILL HOLDER-DRAW BAR THREAD END



Inch						Metric					
Shank Hole			Shank Hole			Shank Hole			Shank Hole		
Taper	Size	Model No.	Taper	Size	Model No.	Taper	Size	Model No.	Taper	Size	Model No.
MT2	1/2"	219-2232	MT4	7/8"	219-4456	MT2	13mm	219-2213	MT4	27mm	219-4327
MT2	5/8"	219-2240	MT4	1"	219-4464	MT2	16mm	219-2216	MT4	32mm	219-4332
MT2	3/4"	219-2248	MT4	1-1/4"	219-4466	MT2	22mm	219-2222	MT4	40mm	219-4340
MT3	1/2"	219-3432	MT4	1-1/2"	219-4468	MT3	16mm	219-3316	MT5	16mm	219-5316
MT3	5/8"	219-3440	MT5	1/2"	219-5532	MT3	22mm	219-3322	MT5	22mm	219-5322
MT3	3/4"	219-3448	MT5	5/8"	219-5540	MT3	27mm	219-3327	MT5	27mm	219-5327
MT3	7/8"	219-3456	MT5	3/4"	219-5548	MT3	32mm	219-3332	MT5	32mm	219-5332
MT3	1"	219-3464	MT5	7/8"	219-5556	MT4	16mm	219-4316	MT5	40mm	219-5340
MT3	1-1/4"	219-3466	MT5	1"	219-5564	MT4	22mm	219-4322	MT5	50mm	219-5350
MT4	1/2"	219-4432	MT5	1-1/4"	219-5566						
MT4	5/8"	219-4440	MT5	1-1/2"	219-5568						
MT4	3/4"	219-4448	MT5	2"	219-5570						

STRAIGHT SHANK SHELL END MILL HOLDER

Dia. Of Shank	Arbor Dia.	Model No.
1/2"	1/2"	210-5501
1/2"	3/4"	210-5502
1/2"	1"	210-5503
1/2"	1-1/4"	210-5504
1/2"	1-1/2"	210-5505
3/4"	1/2"	210-5506
3/4"	3/4"	210-5507
3/4"	1"	210-5508
3/4"	1-1/4"	210-5509
3/4"	1-1/2"	210-5510



R8 SHELL END MILL HOLDER



Inch		Metric	
Arbor Dia.	Model No.	Arbor Dia.	Model No.
1/2"	210-0401	16mm	210-0416
3/4"	210-0402	19mm	210-0419
1"	210-0403	22mm	210-0422
1-1/4"	210-0404	27mm	210-0427
1-1/2"	210-0405	32mm	210-0432
		40mm	210-0440

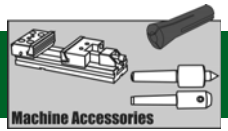
30,40 AND 50 SHELL END MILL HOLDER

Inch			
Hole Size	30 Taper Model No.	40 Taper Model No.	50 Taper Model No.
1/2"	210-6332	210-6431	210-6531
3/4"	210-6348	210-6448	210-6548
1"	210-6364	210-6464	210-6564
1-1/4"	210-6366	210-6466	210-6566
1-1/2"	210-6368	210-6468	210-6568
2"	210-6370	210-6470	210-6570
2-1/2"			210-6572



ISO-Metric			
Hole Size	ISO 30 Model No.	ISO 40 Model No.	ISO 50 Model No.
16mm	210-7316	210-7416	210-7516
19mm	210-7319	210-7419	210-7519
22mm	210-7322	210-7422	210-7522
25mm	210-7325	210-7425	210-7525
27mm	210-7327	210-7427	210-7527
32mm	210-7332	210-7432	210-7532
40mm	210-7340	210-7440	210-7540
50mm	210-7350	210-7450	210-7550
63mm	210-7363	210-7463	210-7563

Machine Accessories



CARBIDE INDEXABLE END MILL

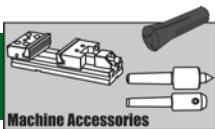
Shank	Cut Dia.	Teeth	Model No.
R8	16mm	1	210-0816
R8	18mm	1	210-0818
R8	20mm	2	210-0820
R8	22mm	2	210-0822
R8	25mm	2	210-0825
R8	28mm	2	210-0828
R8	32mm	2	210-0832
R8	36mm	2	210-0836
R8	40mm	3	210-0840
R8	5/8"	1	210-0841
R8	11/16"	1	210-0844
R8	45mm	3	210-0845
R8	50mm	3	210-0850
R8	13/16"	2	210-0852
R8	7/8"	2	210-0856
R8	1"	2	210-0864
R8	1-1/16"	2	210-0870
R8	1-1/4"	2	210-0875
R8	1-3/8"	2	210-0880
R8	1-5/8"	3	210-0885
R8	1-13/16"	3	210-0890
R8	2"	3	210-0895
R8	2-1/2"	4	210-0896
16mm	16mm	1	210-1616
16mm	18mm	1	210-1618
16mm	20mm	2	210-1618
16mm	22mm	2	210-1620
16mm	25mm	2	210-1622
16mm	28mm	2	210-1625
16mm	32mm	2	210-1628
16mm	36mm	2	210-1632
16mm	40mm	3	210-1636
16mm	45mm	3	210-1640
16mm	50mm	3	210-1645
20mm	16mm	1	210-2016
20mm	18mm	1	210-2018
20mm	20mm	2	210-2020
20mm	22mm	2	210-2022
20mm	25mm	2	210-2025
20mm	28mm	2	210-2028
20mm	32mm	2	210-2032
20mm	36mm	2	210-2036
20mm	40mm	3	210-2040
20mm	45mm	3	210-2045
20mm	50mm	3	210-2050
25mm	16mm	1	210-1716
25mm	18mm	1	210-1718
25mm	20mm	2	210-1720
25mm	22mm	2	210-1722
25mm	25mm	2	210-1725
25mm	28mm	2	210-1728
25mm	32mm	2	210-1732
25mm	36mm	2	210-1736
25mm	40mm	3	210-1740
25mm	45mm	3	210-1745
25mm	50mm	3	210-1750
32mm	16mm	1	210-1816
32mm	18mm	1	210-1818
32mm	20mm	2	210-1820
32mm	22mm	2	210-1822
32mm	25mm	2	210-1825
32mm	28mm	2	210-1828
32mm	32mm	2	210-1832
32mm	36mm	2	210-1836
32mm	40mm	3	210-1840
32mm	45mm	3	210-1845
32mm	50mm	3	210-1850

Shank	Cut Dia.	Teeth	Model No.
MT3	16mm	1	210-2316
MT3	18mm	1	210-2318
MT3	20mm	2	210-2320
MT3	22mm	2	210-2322
MT3	25mm	2	210-2325
MT3	28mm	2	210-2328
MT3	32mm	2	210-2332
MT3	36mm	2	210-2336
MT3	40mm	3	210-2340
MT3	5/8"	1	210-2341
MT3	11/16"	1	210-2344
MT3	45mm	3	210-2345
MT3	50mm	3	210-2350
MT3	13/16"	2	210-2352
MT3	7/8"	2	210-2356
MT3	1"	2	210-2364
MT3	1-1/16"	2	210-2370
MT3	1-1/4"	2	210-2375
MT3	1-3/8"	2	210-2380
MT3	1-5/8"	3	210-2385
MT3	1-13/16"	3	210-2390
MT3	2"	3	210-2395
MT4	16mm	1	210-2416
MT4	18mm	1	210-2418
MT4	20mm	2	210-2420
MT4	22mm	2	210-2422
MT4	25mm	2	210-2425
MT4	28mm	2	210-2428
MT4	32mm	2	210-2432
MT4	36mm	2	210-2436
MT4	40mm	3	210-2440
MT4	5/8"	1	210-2441
MT4	11/16"	1	210-2444
MT4	45mm	3	210-2445
MT4	50mm	3	210-2450
MT4	13/16"	2	210-2452
MT4	7/8"	2	210-2456
MT4	1"	2	210-2464
MT4	1-1/16"	2	210-2470
MT4	1-1/4"	2	210-2475
MT4	1-3/8"	2	210-2480
MT4	1-5/8"	3	210-2485
MT4	1-13/16"	3	210-2490
MT4	2"	3	210-2495
MT5	16mm	1	210-2516
MT5	18mm	1	210-2518
MT5	20mm	2	210-2520
MT5	22mm	2	210-2522
MT5	25mm	2	210-2525
MT5	28mm	2	210-2528
MT5	32mm	2	210-2532
MT5	36mm	2	210-2536
MT5	40mm	3	210-2540
MT5	5/8"	1	210-2541
MT5	11/16"	1	210-2544
MT5	45mm	3	210-2545
MT5	50mm	3	210-2550
MT5	13/16"	2	210-2552
MT5	7/8"	2	210-2556
MT5	1"	2	210-2564
MT5	1-1/16"	2	210-2570
MT5	1-1/4"	2	210-2575
MT5	1-3/8"	2	210-2380
MT5	1-5/8"	3	210-2585
MT5	1-13/16"	3	210-2590
MT5	2"	3	210-2595



Shank	Cut Dia.	Teeth	Model No.
5/8"	5/8"	1	210-2640
5/8"	11/16"	1	210-2644
5/8"	13/16"	2	210-2652
5/8"	7/8"	2	210-2656
5/8"	1"	2	210-2664
5/8"	1-1/8"	2	210-2670
5/8"	1-1/4"	2	210-2675
5/8"	1-3/8"	2	210-2680
5/8"	1-5/8"	3	210-2685
5/8"	1-13/16"	3	210-2690
5/8"	2"	3	210-2695
1/4"	5/8"	1	210-2740
1/4"	11/16"	1	210-2744
1/4"	13/16"	2	210-2752
1/4"	7/8"	2	210-2756
1/4"	1"	2	210-2764
1/4"	1-1/8"	2	210-2770
1/4"	1-1/4"	2	210-2775
1/4"	1-3/8"	2	210-2780
1/4"	1-5/8"	3	210-2785
1/4"	1-13/16"	3	210-2790
1/4"	2"	3	210-2795
1"	5/8"	1	210-2840
1"	11/16"	1	210-2844
1"	13/16"	2	210-2852
1"	7/8"	2	210-2856
1"	1"	2	210-2864
1"	1-1/8"	2	210-2870
1"	1-1/4"	2	210-2875
1"	1-3/8"	2	210-2880
1"	1-5/8"	3	210-2885
1"	1-13/16"	3	210-2890
1"	2"	3	210-2895
1-1/4"	5/8"	1	210-2941
1-1/4"	11/16"	1	210-2944
1-1/4"	13/16"	2	210-2952
1-1/4"	7/8"	2	210-2956
1-1/4"	1"	2	210-2964
1-1/4"	1-1/8"	2	210-2970
1-1/4"	1-1/4"	2	210-2975
1-1/4"	1-3/8"	2	210-2980
1-1/4"	1-5/8"	3	210-2985
1-1/4"	1-13/16"	3	210-2990
1-1/4"	2"	3	210-2995
30	16mm	1	210-8316
30	18mm	1	210-8318
30	20mm	2	210-8320
30	22mm	2	210-8322
30	25mm	2	210-8325
30	28mm	2	210-8328
30	32mm	2	210-8332
30	36mm	2	210-8336
30	40mm	3	210-8340
30	5/8"	1	210-8341
30	11/16"	1	210-8344

Shank	Cut Dia.	Teeth	Model No.
30	45mm	3	210-8345
30	50mm	3	210-8350
30	13/16"	2	210-8352
30	7/8"	2	210-8356
30	1"	2	210-8364
30	1-1/16"	2	210-8370
30	1-1/4"	2	210-8375
30	1-3/8"	2	210-8380
30	1-5/8"	3	210-8385
30	1-13/16"	3	210-8390
30	2"	3	210-8395
40	16mm	1	210-8416
40	18mm	1	210-8418
40	20mm	2	210-8420
40	22mm	2	210-8422
40	25mm	2	210-8425
40	28mm	2	210-8428
40	32mm	2	210-8432
40	36mm	2	210-8436
40	40mm	3	210-8440
40	5/8"	1	210-8441
40	11/16"	1	210-8444
40	45mm	3	210-8445
40	50mm	3	210-8450
40	13/16"	2	210-8452
40	7/8"	2	210-8456
40	1"	2	210-8464
40	1-1/8"	2	210-8470
40	1-1/4"	2	210-8475
40	1-3/8"	2	210-8480
40	1-5/8"	3	210-8485
40	1-13/16"	3	210-8490
40	2"	3	210-8495
50	16mm	1	210-8516
50	18mm	1	210-8518
50	20mm	2	210-8520
50	22mm	2	210-8522
50	25mm	2	210-8525
50	28mm	2	210-8528
50	32mm	2	210-8532
50	36mm	2	210-8536
50	40mm	3	210-8540
50	5/8"	1	210-8541
50	11/16"	1	210-8544
50	45mm	3	210-8545
50	50mm	3	210-8550
50	13/16"	2	210-8552
50	7/8"	2	210-8556
50	1"	2	210-8564
50	1-1/16"	2	210-8570
50	1-1/4"	2	210-8575
50	1-3/8"	2	210-8580
50	1-5/8"	3	210-8585
50	1-13/16"	3	210-8590
50	2"	3	210-8595



Machine Accessories

MT COMBI SHELL END MILL ARBORS



Inch				
Shank Arbor			Arbor	
Taper	Dia.	Model No.	Taper	Dia.
MT3	1/2"	210-3532	MT4	1-1/4"
MT3	5/8"	210-3540	MT4	1-1/2"
MT3	3/4"	210-3548	MT4	2"
MT3	7/8"	210-3556	MT5	5/8"
MT3	1"	210-3564	MT5	3/4"
MT3	1-1/4"	210-3566	MT5	7/8"
MT4	1/2"	210-4532	MT5	1"
MT4	5/8"	210-4540	MT5	1-1/4"
MT4	3/4"	210-4548	MT5	1-1/2"
MT4	7/8"	210-4556	MT5	2"
MT4	1"	210-4564		

Metric				
Shank Arbor			Arbor	
Taper	Dia.	Model No.	Taper	Dia.
MT3	13mm	210-3613	MT4	27mm
MT3	16mm	210-3616	MT4	32mm
MT3	22mm	210-3622	MT4	40mm
MT3	27mm	210-3627	MT5	22mm
MT3	32mm	210-3632	MT5	27mm
MT4	13mm	210-4613	MT5	32mm
MT4	16mm	210-4616	MT5	40mm
MT4	22mm	210-4622	MT5	50mm

R8 COMBI SHELL END MILL ARBORS

It could be used clutch drive ring cross screw, cross spanner to help to clamp various end mills.



Inch	
Arbor Dia.	Model No.
1/2"	210-1332
5/8"	210-1340
3/4"	210-1348
1"	210-1364
1-1/4"	210-1366
1-1/2"	210-1368

Metric	
Arbor Dia.	Model No.
13mm	210-1413
16mm	210-1416
22mm	210-1422
27mm	210-1427
32mm	210-1432
40mm	210-1440

30-40-50 COMBI SHELL END MILL ARBORS



DIN 2080

Hole Size	SK50 Model No.	SK40 Model No.	SK 30 Model No.
16	210-9516	210-9416	210-9316
22	210-9522	210-9422	210-9322
27	210-9527	210-9427	210-9327
32	210-9532	210-9432	210-9332
40	210-9540	210-9440	
50	210-9550	210-9450	

Inch			
Arbor Dia.	30 Model No.	40 Model No.	50 Model No.
1/2"	210-3132		
5/8"	210-3140	210-4140	210-5140
3/4"	210-3148	210-4148	210-5148
7/8"	210-3156	210-4156	210-5156
1"	210-3164	210-4164	210-5164
1-1/4"	210-3166	210-4166	210-5166
1-1/2"		210-4168	210-5168
2"		210-4170	210-5170

Metric			
Arbor Dia.	30 Model No.	40 Model No.	50 Model No.
13mm	210-3213		
16mm	210-3216	210-4216	210-5216
22mm	210-3222	210-4222	210-5222
27mm	210-3227	210-4227	210-5227
32mm	210-3232	210-4232	210-5232
40mm		210-4240	210-5240
50mm		210-4250	210-5250

ACCESSORY FOR SHELL COMBI END MILL ARBORS

SCREWS



Inch		
Arbor Dia.	Thread	Model No.
1/2"	1/4-28	210-5840
3/4"	3/8-24	210-5841
1"	1/2-20	210-5842
1-1/4"	5/8-18	210-5843
1-1/2"	3/4-16	210-5844
2"	1-14	210-5845

Metric		
Arbor Dia.	Thread	Model No.
13mm	M6	210-5830
16mm	M8	210-5831
22mm	M10	210-5832
27mm	M12	210-5833
32mm	M16	210-5834
40mm	M20	210-5835
50mm	M24	210-5836
60mm	M30	210-5837

Spanner



Inch	
Arbor Dia.	Model No.
1/2"	210-5860
5/8"	210-5861
3/4"	210-5862
1"	210-5863
1-1/4"	210-5864
1-1/2"	210-5865
2"	210-5866

Metric	
Arbor Dia.	Model No.
13mm	210-5850
16mm	210-5851
22mm	210-5852
27mm	210-5853
32mm	210-5854
40mm	210-5855
50mm	210-5856
60mm	210-5857

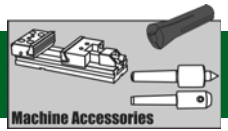
Driver Ring



Inch	
Size	Model No.
1/2"	210-5810
5/8"	210-5811
3/4"	210-5822
7/8"	210-5823
1"	210-5824
1-1/4"	210-5825
1-1/2"	210-5826
2"	210-5827
1/2"	210-5880

Metric	
Size	Model No.
13mm	210-5800
16mm	210-5801
22mm	210-5802
27mm	210-5803
32mm	210-5804
40mm	210-5805
50mm	210-5806
60mm	210-5807

Machine Accessories



MILLING MACHINE ARBORS

STYLE A

- Style A with 23/32" x 1-3/4" pilots.
- Machined from high grade forging; have standard key ways and include arbor spacers and running bushings.



STYLE B

- Style B without pilots.
- Machined from high grade forging; have standard key ways and include arbor spacers and running bushings.



Arbor No.	Taper	Length of Dia. of				Model No.
		Arbor Dia.	Shoulder To nut	Running Bushings	Bushings Furnished	
30-7/8-A10-2	30	7/8"	10	1-5/8"	1	219-8332
31-A10-2	30	1"	10	1-5/8"	1	219-8336
31-1/4-A10-2	30	1-1/4"	10	1-7/8"	1	219-8338
40-7/8-A10	40	7/8"	10		None	219-8432
40-7/8-A16-3	40	7/8"	16	1-7/8"	1	219-8434
41-A8	40	1"	8		None	219-8436
41-A10	40	1"	10		None	219-8438
41-A12	40	1"		12	None	219-8440
41-A16-3	40	1"	16	1-7/8"	1	219-8442
41-1/4-A8	40	1-1/4"	8		None	219-8444
41-1/4-A10	40	1-1/4"	10		None	219-8446
41-1/4-A12	40	1-1/4"	12		None	219-8448
41-1/4-A-16-3	40	1-1/4"	16	1-7/8"	1	219-8450
50-7/8-A10	50	7/8"	10		None	219-8532
50-7/8-A18-4	50	7/8"	18	2-1/8"	1	219-8534
51-A8	50	1"	8		None	219-8536
51-A12	50	1"	12	2-1/8"	None	219-8538
51-A18-4	50	1"	18		1	219-8540
51-1/4-A8	50	1-1/4"	8		None	219-8542
51-1/4-A12	50	1-1/4"	12		None	219-8544
51-1/4-A18-4	50	1-1/4"	18	2-1/8"	1	219-8546

Arbor No.	Taper	Length of Dia. of				Model No.
		Arbor Dia.	Shoulder To nut	Running Bushings	Bushings Furnished	
31-B2	30	1"	2"	None	None	219-9334
40-7/8-B14-3	40	7/8"	14	1-7/8"	1	219-9432
40-7/8-B16-3	40	7/8"	16	1-7/8"	1	219-9434
41-B3	40	1"	3"	None	None	219-9436
41-B14-3	40	1"	14	1-7/8"	1	219-9438
41-B20-3	40	1"	20	1-7/8"	1	219-9440
41-1/4-B3	40	1-1/4"	3"	None	None	219-9442
41-1/4-B14-3	40	1-1/4"	14	1-7/8"	1	219-9444
41-1/4-B20-3	40	1-1/4"	20	1-7/8"	1	219-9446
41-1/2-B10	40	1-1/2"	10	2-1/8"	None	219-9448
41-1/2-B20-4	40	1-1/2"	20	2-1/8"	1	219-9450
51-B3-1/2	50	1"	3-1/2"	None	None	219-9532
51-B15-4	50	1"	15	2-1/8"	1	219-9534
51-B18-4	50	1"	18	2-1/8"	2	219-9536
51-B24-4	50	1"	24	2-1/8"	2	219-9538
51-1/4-B3-1/2	50	1-1/4"	3-1/2"	None	None	219-9540
51-1/4-B15-4	50	1-1/4"	15	2-1/8"	1	219-9542
51-1/4-B18-4	50	1-1/4"	18	2-1/8"	2	219-9544
51-1/4-B24-4	50	1-1/4"	24	2-1/8"	2	219-9546
51-1/4-B30-4	50	1-1/4"	30	2-1/8"	2	219-9548
51-1/2-B3-1/2	50	1-1/2"	3-1/2"	None	None	219-9550
51-1/2-B18-4	50	1-1/2"	18	2-1/8"	2	219-9552
51-1/2-B24-5	50	1-1/2"	24	2-3/4"	2	219-9554
51-1/2-B30-5	50	1-1/2"	30	2-3/4"	2	219-9556
51-1/2-B36-5	50	1-1/2"	36	2-3/4"	2	219-9558
52-B24-5	50	2"	24	2-3/4"	2	219-9560
52-B30-5	50	2"	30	2-3/4"	2	219-9562
52-B36-5	50	2"	36	2-3/4"	2	219-9564
52-1/2-B36-6	50	2-1/2"	36	3-3/8"	2	219-9566

ARBOR SPACERS

With Keyways



7/8" Hole and 1-3/8" and 1-1/2"						1" Hole and 1-1/2"						1-1/4" Hole and 1-3/4"						1-1/2" Hole and 2-1/8"						2" Hole and 2-3/4"					
Spacer Width	Model No.	Model No.	Model No.	Model No.	Model No.	Spacer Width	Model No.	Model No.	Model No.	Model No.	Model No.	Spacer Width	Model No.	Model No.	Model No.	Model No.	Model No.	Spacer Width	Model No.	Model No.	Model No.	Model No.	Spacer Width	Model No.	Model No.	Model No.	Model No.		
1/16"	219-8110	219-8210	219-8710	219-8810	219-8910	1/2"	219-8126	219-8226	219-8726	219-8826	219-8926	3/4"	219-8130	219-8230	219-8730	219-8830	219-8930	7/8"	219-8132	219-8232	219-8732	219-8832	219-8932	1"	219-8134	219-8234	219-8734	219-8834	219-8934
3/32"	219-8112	219-8212	219-8712	219-8812	219-8912	5/8"	219-8128	219-8228	219-8728	219-8828	219-8928	1-1/4"	219-8136	219-8236	219-8736	219-8836	219-8936	1-1/2"	219-8138	219-8238	219-8738	219-8838	219-8938	1-1/2"	219-8140	219-8240	219-8740	219-8840	219-8940
1/8"	219-8114	219-8214	219-8714	219-8814	219-8914	3/4"	219-8130	219-8230	219-8730	219-8830	219-8930	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942
3/16"	219-8116	219-8216	219-8716	219-8816	219-8916	7/8"	219-8132	219-8232	219-8732	219-8832	219-8932	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942
1/4"	219-8118	219-8218	219-8718	219-8818	219-8918	1"	219-8134	219-8234	219-8734	219-8834	219-8934	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942
5/16"	219-8120	219-8220	219-8720	219-8820	219-8920	1-1/4"	219-8136	219-8236	219-8736	219-8836	219-8936	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942
3/8"	219-8122	219-8222	219-8722	219-8822	219-8922	1-1/2"	219-8138	219-8238	219-8738	219-8838	219-8938	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942
7/16"	219-8124	219-8224	219-8724	219-8824	219-8924	1-1/2"	219-8138	219-8238	219-8738	219-8838	219-8938	2"	219-8142	219-8242	219-8742	219-8842	219-8942	3"	219-8142	219-8242	219-8742	219-8842	219-8942	2"	219-8142	219-8242	219-8742	219-8842	219-8942

ARBOR RUNNING BUSHINGS WITH KEYWAYS

For Style A and Style B milling machine arbors



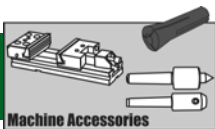
Arbor Dia.	Outside Dia.	Length	Model No.	Arbor Dia.	Outside Dia.	Length	Model No.
7/8"	1-5/8"	2-5/8"	219-8652	1-1/4"	2-1/8"	3-3/4"	219-8668
1"	1-5/8"	2-5/8"	219-8654	1-1/2"	2-1/8"	3-3/4"	219-8670
1-1/4"	1-7/8"	2-5/8"	219-8656	7/8"	2-3/4"	4-1/4"	219-8672
7/8"	1-7/8"	3-1/8"	219-8658	1"	2-3/4"	4-1/4"	219-8674
1"	1-7/8"	3-1/8"	219-8660	1-1/4"	2-3/4"	4-1/4"	219-8676
1-1/4"	1-7/8"	3-1/8"	219-8662	1-1/2"	2-3/4"	4-1/4"	219-8678
7/8"	2-1/8"	3-3/4"	219-8664	2"	2-3/4"	4-1/4"	219-8680
1"	2-1/8"	3-3/4"	219-8666	2-1/2"	3-3/8"	4-1/4"	219-8682

NUTS

For milling machine arbors



Arbor Dia.	Thread	Model No.
7/8"	7/8-14RH	219-8632
1"	1-14RH	219-8634
1-1/4"	1-1/4-12RH	219-8636
1-1/2"	1-1/2-12 RH	219-8638
2"	2-12RH	219-8640
2-1/2"	2-1/2-12RH	219-8642



Machine Accessories

MICROMETER ADJUSTABLE SPACING COLLARS

- Provides you with quick, accurate and positive adjustment.
- Features precise calibration of 1/1000".



Range	Hole Dia.	Outside Dia.	Thickness	Model No.
7/16-5/8"	3/4	1-1/2	7/16	712-0400
9/16-3/4"	7/8	1-1/2	9/16	712-0410
5/8-7/8"	1	1-3/4	5/8	712-0420
3/4-1"	1-1/4	2-1/8	3/4	712-0430
7/8-1-1/4"	1-1/2	2-5/8	7/8	712-0440
15/16-1-1/2"	2	3-5/8	15/16	712-0450



STRAIGHT SHANK STUB MILLING MACHINE ARBORS

- For holding saws or small cutters.
- These arbors are designed and made to fit directly into standard End Mill Adapters. Sets include spacers and nut.
- Arbors furnished with standard key ways and L.H. arbor nut.
- Lengths of shoulder to nut are 1"
- Hardened and ground.

Dia. Of Shank	Arbor Dia.	Length of Shoulder to Nut	Model No.
1/2"	1/2"	1"	210-3800
1/2"	5/8"	1"	210-3801
1/2"	3/4"	1"	210-3802
3/4"	1/2"	1"	210-3803
3/4"	5/8"	1"	210-3804
3/4"	3/4"	1"	210-3805
3/4"	7/8"	1"	210-3806
3/4"	1"	1"	210-3807
3/4"	1-1/4"	1"	210-3808

STUB MILLING MACHINE ARBORS

- Adjust the washer to hold the end mills according to your various needs.



Inch	Shank	Arbor Dia.	Length of Shoulder to Nut	Model No.
	R8	1"	2"	210-2108
	MT2	1"	2"	210-2112
	MT3	1"	2"	210-2113
	MT4	1"	2"	210-2114
	MT5	1"	2"	210-2115
	R8	1-1/4"	2"	210-2118
	MT2	1-1/4"	2"	210-2122
	MT3	1-1/4"	2"	210-2123
	MT4	1-1/4"	2"	210-2124
	MT5	1-1/4"	2"	210-2125
	30	1"	1-1/2"	210-2130
	30	1-1/4"	1-3/4"	210-2133
	40	1"	1-1/2"	210-2140
	40	1-1/4"	1-3/4"	210-2144
	50	1"	1-1/2"	210-2150
	50	1-1/4"	1-3/4"	210-2155

Metric	Shank	End Mill Dia.	Model No.
	R8	22mm	210-2208
	MT2	22mm	210-2212
	MT3	22mm	210-2213
	MT4	22mm	210-2214
	MT5	22mm	210-2215
	R8	27mm	210-2218
	MT2	27mm	210-2222
	MT3	27mm	210-2223
	MT4	27mm	210-2224
	MT5	27mm	210-2225

7:24 TO MORSE TAPER ADAPTERS

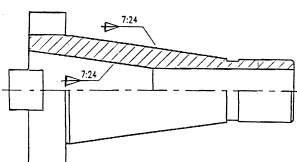


Outside Taper	Inside Taper	Overall Length	Model No.	Outside Taper	Inside Taper	Overall Length	Model No.
30	1	118mm	214-7300	40	4	188mm	214-7335
30	2	118mm	214-7305	40	5	273mm	214-7340
30	3	138mm	214-7310	50	1	172mm	214-7345
30	4	212mm	214-7315	50	2	187mm	214-7350
40	1	143mm	214-7320	50	3	192mm	214-7355
40	2	143mm	214-7325	50	4	197mm	214-7360
40	3	158mm	214-7330	50	5	232mm	214-7365

7:24 TO 7:24 ADAPTERS

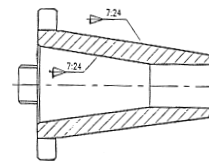
Inside Taper Draw, Key Type

Outside Taper	Inside Taper	Overall Length	Model No.
40	30	110mm	214-7270
50	30	145mm	214-7275
50	40	145mm	214-7280



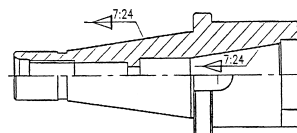
End Open Type

Outside Taper	Inside Taper	Overall Length	Model No.
40	30	86mm	214-7200
50	30	129.5mm	214-7205
50	40	129.5mm	214-7210



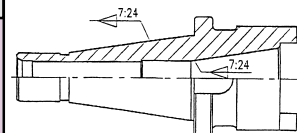
Outside Taper Draw

Outside Taper	Inside Taper	Overall Length	Model No.
40	30	152.4mm	214-7220
50	30	185.8mm	214-7225
50	40	207.8mm	214-7230

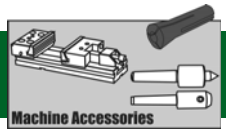


Inside Taper Draw

Outside Taper	Inside Taper	Overall Length	Model No.
40	30	152.4mm	214-7240
40	40	204.4mm	214-7245
50	30	185.8mm	214-7250
50	40	207.8mm	214-7255
50	50	260.8mm	214-7260



Machine Accessories



R8 TO MT SLEEVES



Specifications	Model No.
from R8 to MT1	214-9001
from R8 to MT2	214-9002
from R8 to MT3	214-9003
from R8 to MT4	214-9004

DRIFT KEYS-DROP FORGED

Removes taper shank drills or reamers Set Model No. 292-6240
From sleeves or sockets quickly Set include all FOUR sizes



Size	Fits Mt. Sleeves and Sockets	Overall		Width		Model No.
		Length	ThickNess	at Hole		
1	No. 1 M. T.	4-1/2"	13/64"	11/16"		292-6220
2	No. 2 M. T.	4-1/8"	1/4"	13/16"		292-6225
3	No. 3 M. T.	6-3/4"	5/16"	1-1/16"		292-6230
4	No. 4.5.6. M. T.	7-1/8"	15/32"	1-1/8"		292-6235

MORSE TAPER SLEEVES



Hardened Tang Only

Morse Taper Outside	Morse Taper Inside	Model No.	Morse Taper Outside	Morse Taper Inside	Model No.
1	0	214-8001	5	2	214-8025
2	1	214-8012	6	2	214-8026
3	1	214-8013	4	3	214-8034
4	1	214-8014	5	3	214-8035
5	1	214-8015	6	3	214-8036
6	1	214-8016	5	4	214-8045
3	2	214-8023	6	4	214-8046
4	2	214-8024	6	5	214-8056

Hardened & Ground Throughout, DIN-2185

Morse Taper Outside	Morse Taper Inside	Model No.	Morse Taper Outside	Morse Taper Inside	Model No.
1	0	214-8101	5	2	214-8125
2	1	214-8112	6	2	214-8126
3	1	214-8113	4	3	214-8134
4	1	214-8114	5	3	214-8135
5	1	214-8115	6	3	214-8136
6	1	214-8116	5	4	214-8145
3	2	214-8123	6	4	214-8146
4	2	214-8124	6	5	214-8156

MORSE TAPER EXTENSION SOCKETS



Hardened Tang Only

Morse Taper Shank Outside	Morse Taper Hole Inside	Model No.	Morse Taper Shank Outside	Morse Taper Hole Inside	Model No.	Morse Taper Shank Outside	Morse Taper Hole Inside	Model No.
1	1	214-8511	5	2	214-8525	5	4	214-8545
2	1	214-8512	6	2	214-8526	6	4	214-8546
3	1	214-8513	2	3	214-8532	3	5	214-8553
4	1	214-8514	3	3	214-8533	4	5	214-8554
5	1	214-8515	4	3	214-8534	5	5	214-8555
6	1	214-8516	5	3	214-8535	6	5	214-8556
1	2	214-8521	6	3	214-8536	4	6	214-8564
2	2	214-8522	2	4	214-8542	5	6	214-8565
3	2	214-8523	3	4	214-8543	6	6	214-8566
4	2	214-8524	4	4	214-8544			

Hardened & Ground Throughout, DIN-2187

Morse Taper Shank Outside	Morse Taper Hole Inside	Model No.	Morse Taper Shank Outside	Morse Taper Hole Inside	Model No.
1	1	214-8611	1	4	214-8641
2	1	214-8612	2	4	214-8642
3	1	214-8613	3	4	214-8643
4	1	214-8614	4	4	214-8644
5	1	214-8615	5	4	214-8645
6	1	214-8616	6	4	214-8646
1	2	214-8621	1	5	214-8651
2	2	214-8622	2	5	214-8652
3	2	214-8623	3	5	214-8653
4	2	214-8624	4	5	214-8654
5	2	214-8625	5	5	214-8655
6	2	214-8626	6	5	214-8656
1	3	214-8631	1	6	214-8661
2	3	214-8632	2	6	214-8662
3	3	214-8633	3	6	214-8663
4	3	214-8634	4	6	214-8664
5	3	214-8635	5	6	214-8665
6	3	214-8636	6	6	214-8666

SOLID SOCKETS

Morse Taper I.D. Straight Shank O.D., Ground & Accurate.



Used to convert spindles to larger or smaller tapers and to extend the spindles of drill presses, radial drills, boring mills, turret lathes and similar machines.

Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Model No.	Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Model No.
1	1	1"	3-1/2"	214-8701	10	3	1-1/2"	4-3/4"	214-8710
2	1	1-1/4"	3-1/2"	214-8702	11	3	1-3/4"	4-3/4"	214-8711
3	1	1-1/2"	3-1/2"	214-8703	12	3	2"	4-3/4"	214-8712
4	2	1"	4"	214-8704	13	4	1-1/2"	6"	214-8713
5	2	1-1/4"	4"	214-8705	14	4	1-3/4"	6"	214-8714
6	2	1-1/2"	4"	214-8706	15	4	2"	6"	214-8715
7	2	1-3/4"	4"	214-8707	16	5	2-1/4"	7-3/8"	214-8716
8	2	2"	4"	214-8708	17	5	2-1/2"	7-3/8"	214-8717
9	3	1-1/4"	4-3/4"	214-8709	18	6	3-1/4"	10-1/8"	214-8718
					19	6	3-1/2"	10-1/8"	214-8719