

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 Straight Shank	Arbor Dia.	Length of Shoulder to Nut	Order 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.



Shank	End Mill Dia.	Order 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

Shank	Arbor Dia.	Length of Shoulder to Nut	Order 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

30-40-50 to Morse Taper Adaptors

ANSI, BS & Metric



Outside Taper	Inside Taper	Overall Length	Drawbar Thread	Order No.	Drawbar Thread	Metric Order No.	Drawbar Thread	BS Order No.
30	MT1	118mm	1/2"-13	214-7300	M12	214-7700		
30	MT2	118mm	1/2"-13	214-7305	M12	214-7705	1/2 BSW	214-7605
30	MT3	138mm	1/2"-13	214-7310	M12	214-7710	1/2 BSW	214-7610
30	MT4	212mm	1/2"-13	214-7315	M12	214-7715		
40	MT1	143mm	5/8"-11	214-7320	M16	214-7720		
40	MT2	143mm	5/8"-11	214-7325	M16	214-7725	5/8 BSW	214-7625
40	MT3	158mm	5/8"-11	214-7330	M16	214-7730	5/8 BSW	214-7630
40	MT4	188mm	5/8"-11	214-7335	M16	214-7735	5/8 BSW	214-7635
40	MT5	273mm	5/8"-11	214-7340	M16	214-7740		
50	MT1	172mm	1"-8	214-7345	M24	214-7745		
50	MT2	187mm	1"-8	214-7350	M24	214-7750		
50	MT3	192mm	1"-8	214-7355	M24	214-7755		
50	MT4	197mm	1"-8	214-7360	M24	214-7760		
50	MT5	232mm	1"-8	214-7365	M24	214-7765		

Drift Keys

Drop Forged

Removes taper shank drills or reamers
From sleeves or sockets quickly



Size	Fits Mt. Sleeves and Sockets	Overall Length	ThickNess	Width at Hole	Order No.
1	MT1	4-1/2"	13/64"	11/16"	292-6220
2	MT2	4-1/8"	1/4"	13/16"	292-6225
3	MT3	6-3/4"	5/16"	1-1/16"	292-6230
4	MT4, MT5, MT6	7-1/8"	15/32"	1-1/8"	292-6235
4pcs/set includes: #1, #2, #3 & #4MT					392-6240

Half Automatic Mores Shank Pullers

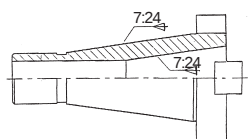
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The morse shank can easy to be pulled off by the half-automatic morse shank puller operation quickly, saving time and pressure.

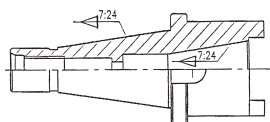
MS. NO	Order No.
MS1, MS2, MS3	292-6211
MS4, MS5, MS6	292-6212

30-40-50 to 30-40-50 Adaptors



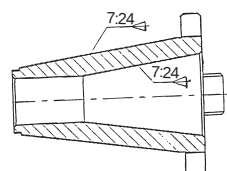
Inside Taper Draw Key Type

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



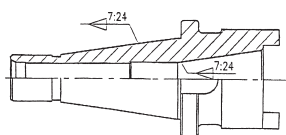
Outside Taper Draw Type

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



End Open Type

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



Inside Taper Draw Type

Outside Taper	Inside Taper	Overall Length	Order 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

Morse Taper Sleeves



Hardened Tang Only

Morse Taper Outside	Morse Taper Inside	Order No.	Morse Taper Inside	Morse Taper Outside	Order No.
MT1	MT0	214-8001	MT2	MT5	214-8025
MT2	MT1	214-8012	MT2	MT6	214-8026
MT3	MT1	214-8013	MT3	MT4	214-8034
MT4	MT1	214-8014	MT3	MT5	214-8035
MT5	MT1	214-8015	MT3	MT6	214-8036
MT6	MT1	214-8016	MT4	MT5	214-8045
MT3	MT2	214-8023	MT4	MT6	214-8046
MT4	MT2	214-8024	MT5	MT6	214-8056

Hardened & Ground Throughout

Morse Taper Outside	Morse Taper Inside	Order No.	Morse Taper Inside	Morse Taper Outside	Order No.
MT1	MT0	214-8101	MT2	MT5	214-8125
MT2	MT1	214-8112	MT2	MT6	214-8126
MT3	MT1	214-8113	MT3	MT4	214-8134
MT4	MT1	214-8114	MT3	MT5	214-8135
MT5	MT1	214-8115	MT3	MT6	214-8136
MT6	MT1	214-8116	MT4	MT5	214-8145
MT3	MT2	214-8123	MT4	MT6	214-8146
MT4	MT2	214-8124	MT5	MT6	214-8156

Micrometer Adjustable Spacing Collars

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



Range	Hole Dia.	Outside Dia.	Thickness	Order 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

R8 to Morse Taper Sleeves

- Internal thread 7/16"-20.



Outside Taper	Morse Taper	Order No.
R8	MT1	214-9001
R8	MT2	214-9002
R8	MT3	214-9003
R8	MT4	214-9004

Morse Taper Extension Sockets



Hardened Tang Only

Shank Taper to Hole Taper	Order No.	Shank Taper to Hole Taper	Order No.
MT1 to MT1	214-8511	MT5 to MT2	214-8525
MT2 to MT1	214-8512	MT6 to MT2	214-8526
MT3 to MT1	214-8513	MT2 to MT3	214-8532
MT4 to MT1	214-8514	MT3 to MT3	214-8533
MT5 to MT1	214-8515	MT4 to MT3	214-8534
MT6 to MT1	214-8516	MT5 to MT3	214-8535
MT1 to MT2	214-8521	MT6 to MT3	214-8536
MT2 to MT2	214-8522	MT2 to MT4	214-8542
MT3 to MT2	214-8523	MT3 to MT4	214-8543
MT4 to MT2	214-8524	MT4 to MT4	214-8544
MT5 to MT5	214-8555	MT5 to MT4	214-8545
MT6 to MT5	214-8556	MT6 to MT4	214-8546
MT4 to MT6	214-8564	MT3 to MT5	214-8553
MT5 to MT6	214-8565	MT4 to MT5	214-8554
MT6 to MT6	214-8566		

Hardened & Ground Throughout

Shank Taper to Hole Taper	Order No.	Shank Taper to Hole Taper	Order No.
MT2 to MT1	214-8612	MT2 to MT4	214-8642
MT3 to MT1	214-8613	MT3 to MT4	214-8643
MT4 to MT1	214-8614	MT4 to MT4	214-8644
MT1 to MT2	214-8621	MT5 to MT4	214-8645
MT2 to MT2	214-8622	MT6 to MT4	214-8646
MT3 to MT2	214-8623	MT3 to MT5	214-8653
MT4 to MT2	214-8624	MT4 to MT5	214-8654
MT2 to MT3	214-8632	MT5 to MT5	214-8655
MT3 to MT3	214-8633	MT6 to MT5	214-8656
MT4 to MT3	214-8634	MT5 to MT6	214-8665
MT5 to MT3	214-8635	MT6 to MT6	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.



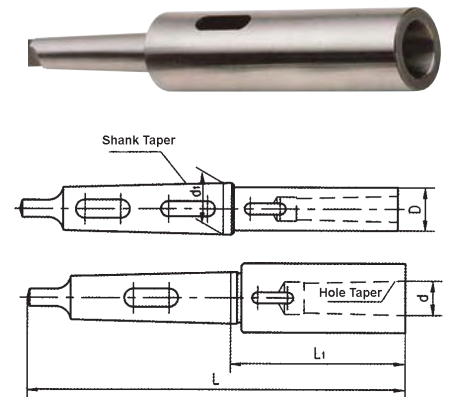
Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Order No.
1	1	1"	3-1/2	214-8701
2	1	1-1/4"	3-1/2	214-8702
3	1	1-1/2"	3-1/2	214-8703
4	2	1"	4	214-8704
5	2	1-1/4"	4	214-8705
6	2	1-1/2"	4	214-8706
7	2	1-3/4"	4	214-8707
8	2	2"	4	214-8708
9	3	1-1/4"	4-3/4	214-8709

Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Order No.
10	3	1-1/2"	4-3/4	214-8710
11	3	1-3/4"	4-3/4	214-8711
12	3	2"	4-3/4	214-8712
13	4	1-1/2"	6	214-8713
14	4	1-3/4"	6	214-8714
15	4	2"	6	214-8715
16	5	2-1/4"	7-3/8	214-8716
17	5	2-1/2"	7-3/8	214-8717
18	6	3-1/4"	10-1/8	214-8718
19	6	3-1/2"	10-1/8	214-8719

Morse Taper Sleeves

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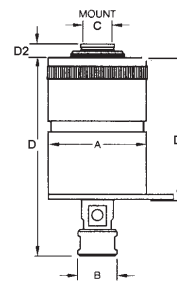
Shank Taper to Hole Taper	Overall Length (mm)	L1 (mm)	D (mm)	d (mm)	d1 (mm)	Accuracy (mm)	Order No.
MT3 to MT1	175	81	20	12.065	23.825	0.03	214-6105
MT3 to MT2	194	100	30	17.780	23.825	0.03	214-6110
MT3 to MT2	500	406	30	17.780	23.825	0.04	214-6115
MT3 to MT3	215	121	36	23.825	23.825	0.03	214-6120
MT3 to MT3	300	206	36	23.825	23.825	0.04	214-6125
MT4 to MT2	215	97.5	30	17.780	31.267	0.03	214-6130
MT4 to MT3	240	122.5	36	23.825	31.267	0.03	214-6135
MT4 to MT4	265	147.5	48	31.267	31.267	0.03	214-6140
MT5 to MT2	247	97.5	30	17.780	44.399	0.04	214-6145
MT5 to MT3	268	118.5	36	23.825	44.399	0.04	214-6150
MT5 to MT4	300	150.5	48	31.267	44.399	0.04	214-6155
MT5 to MT5	335	185.5	63	44.399	44.399	0.04	214-6160
MT5 to MT6	396	246.5	85	63.348	44.399	0.05	214-6165
MT6 to MT4	355	145	48	31.267	63.348	0.04	214-6170
MT6 to MT5	390	180	63	44.399	63.348	0.04	214-6175
MT6 to MT6	460	250	85	63.348	63.348	0.05	214-6180



Reversing Type Tapping Heads

- Use with Jacobs or threaded mounts adapters on manual operated drilling and milling machine.
- The Adjustable torque prevents damage and tap breakage.
- High ratio of reverse turing speed improves productivity.
- Easy operation design.
- Rubber flexible collets.

Capacity of Metric Thread (In Steel)	Capacity of Inch Thread (In Steel)	Mounts	Dimensions(mm)						Order No.
M1.4-M7	#0-1/4"	JT6	D	D1	D2	A	B	C	
M1.4-M7	#0-1/4"	JT33	124	88	11	52	23	22.5	210-0210
M1.4-M7	#0-1/4"	5/16"-24	124	88	11	52	23	22.5	210-0211
M1.4-M7	#0-1/4"	3/8"-24	124	88	11	52	23	22.5	210-0212
M1.4-M7	#0-1/4"	1/2"-20	124	88	11	52	23	22.5	210-0213
M1.4-M7	#0-1/4"	5/8"-16	124	88	11	52	23	22.5	210-0214
M3-M12	#6-1/2"	JT6	155	110	9	74	28	28	210-0215
M3-M12	#6-1/2"	JT33	155	110	9	74	28	28	210-0220
M3-M12	#6-1/2"	1/2"-20	155	110	9	74	28	28	210-0221
M3-M12	#6-1/2"	5/8"-16	155	110	9	74	28	28	210-0222
M3-M12	#6-1/2"	3/4"-16	155	110	9	74	28	28	210-0223
M5-M20	#10-3/4"	JT3	195	132	10	91	38	35.5	210-0224
M5-M20	#10-3/4"	1/2"-20	195	132	10	91	38	35.5	210-0230
M5-M20	#10-3/4"	5/8"-16	195	132	10	91	38	35.5	210-0231
M5-M20	#10-3/4"	3/4"-16	195	132	10	91	38	35.5	210-0232
M5-M20	#10-3/4"		195	132	10	91	38	35.5	210-0233



Rubberflex Collets

	Order No.
4.2mm (2.0-4.2mm/.079-.165")	210-0280
6.5mm (4.2-6.5mm/.165-.256")	210-0282
7.0mm (3.5-7.0mm/.137-.275")	210-0284
9.0mm (5.0-9.0mm/.196-.354")	210-0286
10.0mm (7.0-10.0mm/.275-.393")	210-0288
14.0mm (9.0-14.0mm/.354-.551")	210-0290