



*suttontools*

## R109 -Hand Reamers - Adjustable -Sutton Tools

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Sutton Tools Adjustable Reamers have carbon steel replaceable blades and are good general purpose tools suitable for tool rooms and workshop use. They will produce a clean accurate hole with adjustable size control. For use by hand with suitable wrench. Size is obtained by progressive light cuts approx. 0.05mm per pass.

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### Features:

- Adjustable size range for exacting hole control
- Replaceable blades for extended life of tool
- Made from tungsten chrome alloy
- Bright finish for general purpose applications, non-ferrous metals & plastics

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### Specifications:

<b>Designation:</b>	N
<b>Material:</b>	TCA
<b>Finish:</b>	Brt
<b>Standard:</b>	Sutton

Range:



Item #	Range (mm)	Range (inch)
R1090635	6.35 – 7.15	1/4 – 9/32
R1090715	7.15 – 7.95	9/32 – 5/16
R1090795	7.95 – 8.70	5/16 – 11/32
R1090870	8.70 – 9.50	11/32 – 3/8
R1090950	9.50 – 10.25	3/8 – 13/32
R1091025	10.25 – 11.00	13/32 – 7/16
R1091100	11.00 – 12.00	7/16 – 15/32
R1091200	12.00 – 13.50	15/32 – 17/32
R1091350	13.50 – 15.00	17/32 – 19/32
R1091500	15.00 – 16.75	19/32 – 21/32
R1091675	16.75 – 18.25	21/32 – 23/32
R1091825	18.25 – 19.75	23/32 – 25/32
R1091975	19.75 – 21.50	25/32 – 27/32
R1092150	21.50 – 23.75	27/32 – 15/16
R1092375	23.75 – 27.00	15/16 – 1-1/16
R1092700	27.00 – 30.25	1-1/16 – 1-3/16
R1093025	30.25 – 34.25	1-3/16 – 1-11/32
R1093425	34.25 – 38.00	1-11/32 – 1-1/2
R1093800	38.00 – 46.00	1-1/2 – 1-13/16
R1094600	46.00 – 56.00	1-13/16 – 2-7/32
R1095600	56.00 – 69.75	2-7/32 – 2-3/4
R1096975	69.75 – 85.00	2-3/4 – 3-11/32

### Applications:

ISO	VDI	Description	Condition	Hardness	Strength	Optimal
P	1	Steel - Non-alloy, cast & free cutting (~ 0.15 %C)	Annealed	125MPa	440MPa	●
P	2	Steel - Non-alloy, cast & free cutting (~ 0.45 %C)	Annealed	190MPa	640MPa	●
P	3	Steel - Non-alloy, cast & free cutting (~ 0.45 %C)	Quenched & Tempered	250MPa	840MPa	○
P	4	Steel - Non-alloy, cast & free cutting (~ 0.75 %C)	Annealed	270MPa	910MPa	○
P	5	Steel - Non-alloy, cast & free cutting (~ 0.75 %C)	Quenched & Tempered	300HB	1010MPa	
P	6	Steel - Low alloy & cast < 5% of alloying elements	Annealed	180MPa	610MPa	●
P	7	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	275HB	930MPa	
P	8	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	300HB	1010MPa	
P	9	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	350HB	1180MPa	
P	10	Steel - High alloy, cast & tool	Annealed	200MPa	680MPa	○
P	11	Steel - High alloy, cast & tool	Hardened & Tempered	325HB	1100MPa	
P	12	Steel - Corrosion resistant & cast - Ferritic / Martensitic	Annealed	200HB	680MPa	
P	13	Steel - Corrosion resistant & cast - Martensitic	Quenched & Tempered	240HB	810MPa	
M	14.1	Stainless Steel - Austenitic	Age Hardened	180MPa	610MPa	○
M	14.2	Stainless Steel - Duplex		250HB	840MPa	
M	14.3	Stainless Steel - Precipitation Hardening		250HB	840MPa	
K	15	Cast Iron, Grey (GG) - Ferritic / Pearlitic		180MPa	610MPa	○
K	16	Cast Iron, Grey (GG) - Pearlitic		260HB	880MPa	
K	17	Cast Iron, Nodular (GGG) - Ferritic		160HB	570MPa	
K	18	Cast Iron, Nodular (GGG) - Pearlitic		250HB	840MPa	
K	19	Cast Iron, Malleable - Ferritic		130HB	460MPa	
K	20	Cast Iron, Malleable - Pearlitic		230HB	780MPa	
N	21	Aluminum & Magnesium, wrought alloy - Non Heat Treatable		60MPa	210MPa	○
N	22	Aluminum & Magnesium, wrought alloy - Heat Treatable	Age Hardened	100MPa	360MPa	○
N	23	Aluminum & Magnesium, cast alloy ?12% Si - Non Heat Treatable		75MPa	270MPa	○
N	24	Aluminum & Magnesium, cast alloy ?12% Si - Heat Treatable	Age Hardened	90MPa	320MPa	○
N	25	Aluminum & Magnesium, cast alloy >12% Si - Non Heat Treatabl		130HB	460MPa	
N	26	Copper & Copper alloys (Brass/Bronze) - Free cutting, Pb > 1%		110MPa	390MPa	○
N	27	Copper & Copper alloys (Brass/Bronze) - Brass (CuZn, CuSnZn)		90HB	320MPa	
N	28	Copper & Copper alloys (Brass/Bronze) - Bronze (CuSn)		100MPa	360MPa	○
N	29	Non-metallic - Thermosetting & fiber-reinforced plastics				
N	30	Non-metallic - Hard rubber, wood etc.				
S	31	High temperature alloys - Fe based	Annealed	200HB	680MPa	
S	32	High temperature alloys - Fe based	Age Hardened	280HB	950MPa	
S	33	High temperature alloys - Ni / Co based	Annealed	250HB	840MPa	
S	34	High temperature alloys - Ni / Co based	Age Hardened	350HB	1180MPa	
S	35	High temperature alloys - Ni / Co based	Cast	320HB	1080MPa	
S	36	Titanium & Titanium alloys - CP Titanium			400MPa	
S	37.1	Titanium & Titanium alloys - Alpha alloys			860MPa	
S	37.2	Titanium & Titanium alloys - Alpha / Beta alloys	Annealed		960MPa	
S	37.3	Titanium & Titanium alloys - Alpha / Beta alloys	Age Hardened		1170MPa	
S	37.4	Titanium & Titanium alloys - Beta alloys	Annealed		830MPa	
S	37.5	Titanium & Titanium alloys - Beta alloys	Age Hardened		1400MPa	
H	38.1	Hardened steel	Hardened & Tempered	45HRC		
H	38.2	Hardened steel	Hardened & Tempered	55HRC		

#### KEY

● Optimal ○ Effective | **P** Steel **M** Stainless **K** Cast Iron **N** Non-Ferous Metals **S** Titanium & Super Alloys **H** Hard Materials

### Applications:

ISO	VDI	Description	Condition	Hardness	Strength	Optimal
H	39.1	Hardened steel	Hardened & Tempered	58HRC		
H	39.2	Hardened steel	Hardened & Tempered	62HRC		
H	40	Cast Iron - Chilled	Cast	400HB	1350MPa	
H	41	Cast Iron	Hardened & Tempered	55HRC		

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### Trade/DIY Applications:

Wood	Metal	Specialty	Masonry
Soft Wood	Steel	<ul style="list-style-type: none"> <li>● PVC Plastic</li> </ul>	<ul style="list-style-type: none"> <li>○ Masonry</li> </ul>
Hard Wood	Hard Steel	<ul style="list-style-type: none"> <li>○ Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>○ Plasterboard</li> </ul>
Wood & Nails	Stainless Steel	<ul style="list-style-type: none"> <li>○ mineral rock wool foams (EPS, PUR),</li> </ul>	Compressed Fibre Cement
Chipboard	Aluminium	<ul style="list-style-type: none"> <li>○ Polystyrene</li> </ul>	Cement Sheet
Plywood	Copper / Brass	<ul style="list-style-type: none"> <li>○ Leather</li> </ul>	Ceramic Tile
MDF	Cast Iron	<ul style="list-style-type: none"> <li>○ Rubber</li> </ul>	Hebel
Green Wood	Sheet Metal	Fibreglass	Brick
Sandwich Construction	Precious Metals	Carbon Fibre	Concrete
Pallet	Metal Pipe	Glass	Reinforced Concrete
Window Frame		Laminate	Stone
			Granite
			Marble

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