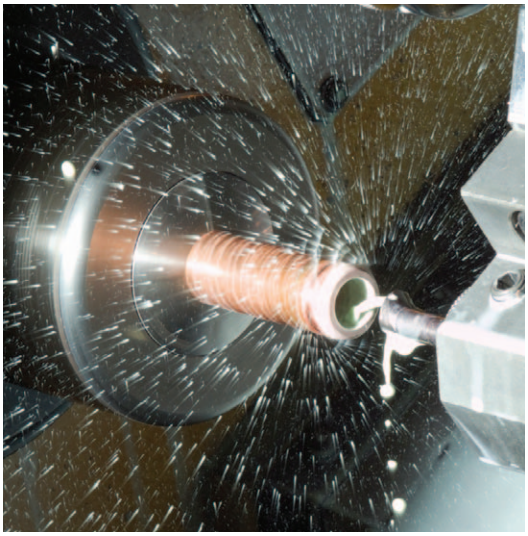
Ameralloy®

MAINTENANCE ALLOY STEELS



- Durelloy™ Heat Treated Alloy
- Durelloy TGP™
- Durelloy "Special 37" 38–42 Rc TGP
- Durelloy™ Threaded Bar
- Dura-Form™ Brake Die
- Durelloy™ Tubing
- Durelloy™ Key Stock
- Ameralloy® Case Hardened Chrome
- Durelloy™ Metric TGP
- Durelloy™ Metric Key Stock
- Durelloy PM™

Durelloy™

HEAT TREATED HOT ROLL ALLOY

Color Code: RED

Durelloy is a well balanced, fine grained electric furnace alloy steel, delivered standard in the heat treated hardness of Rockwell C 28–32. Durelloy is produced for applications requiring high tensile strength, resistance to wear, shock, and fatigue. Each heat lot must pass rigid quality control procedures which assure consistent physical and chemical standards.

In the pre-heat treated condition, Durelloy is excellent for applications requiring high torque and torsional strains. The combined alloy blend of nickel, chrome, molybdenum, and manganese produces excellent physical properties, depth of heat treatment, resistance to many forms of corrosion, excellent toughness, and good ductility.

Durelloy Replaces Both Carbon And Alloy Grade Standard Steels

Carbon Grades
C10xx*
C11xx
C12xx

Chrome-Moly Grades
41xx*

Nickel-Moly Grades
46xx
48xx

Nickel-Chrome Grades
31xx
33xx

Chrome-Nickel-Moly Grades
43xx*
47xx
81xx
86xx
87xx
88xx
93xx
98xx

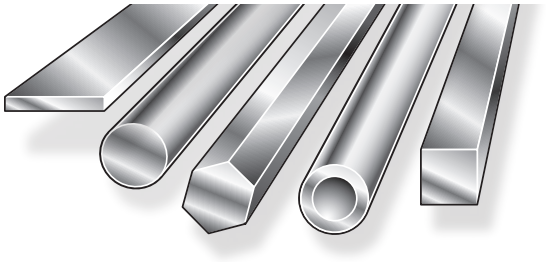
** xx indicates amount of Carbon content.*

Alloy steel marketed under various trade names are included, but are too extensive for listing. Contact your Ameralloy representative or Central Sales Office at 847-967-0600 for assistance in clarification and comparison.

Durelloy Elements Durelloy is a balanced alloy produced in small electric furnace heats.

- **Carbon (C)** Principal hardening element; sets limits for weldability
- **Manganese (MN)** Contributing element for hardness and strength
- **Silicon (SI)** Principal deoxidizer
- **Molybdenum (MO)** Contributing element in hardenability and resisting grain growth
- **Chromium (CR)** Principal element in depth hardening and wear resistance
- **Nickel (NI)** Principal element for strength and toughness
- **Vanadium (V)** Principal element assisting in the formation of stable carbides and a fine microstructure

Durelloy™
HEAT TREATED ALLOY



Applications

- Arbors
- Armature shafts
- Axles
- Bolts & studs
- Boring bars
- Bushings
- Cement mill shafts
- Chain links & pins
- Conveyer shafts
- Conveyer rollers
- Crane axles
- Crank shafts
- Drill bit bodies
- Drive shafts & gears
- Feed screws
- Flame hardened parts
- Gears
- Gear shafts
- Hammer shafts
- Hoist shafts
- Hooks
- Hubs
- Impeller shafts
- Journals
- Lead screws
- Line shafts
- Mining equipment
- Motor shafts
- Mandrels
- Nuts
- Pinions
- Pins
- Piston & push rods
- Power shovel shafts
- Pump shafts & rods
- Shafts
- Spindles
- Sprockets
- Studs
- Textile equipment
- Tie rods
- Tool holders
- Tracks
- Track pins
- U-Bolts

Typical Analysis

- Carbon .35/.42
- Silicon .25/.32
- Molybdenum .15/.30
- Vanadium .01/.04
- Manganese .78/1.10
- Chromium .75/1.09
- Nickel 1.70/1.95

Features And Advantages

- Pre-hardened, heat treated, stress relieved
- Machine straightened to minimize distortion and run-out
- Fine grain microstructure
- Free machining (75% machinability rating)
- Work hardening capabilities
- Fatigue resistant
- High shear strength, abrasion resistant
- Precision controlled analysis
- Excellent temperature tensile properties up to 1100°F

Specials, Heat Treat & Machining

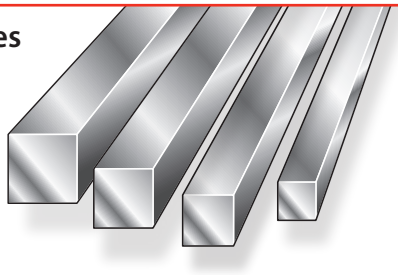
- **Durelloy pre-machined flats** Thickness 1/2"–2", width 2" to 24", length 72". Blanchard ground top and bottom TOL plus .020–.030
- **Durelloy special heat-treat**
- **Durelloy annealed** Every Durelloy size is available in the annealed condition, and can be further heat treated
- **Durelloy forgings** Custom forging to your specifications
- **Custom machining and grinding**

Available Shapes And Sizes

Rounds

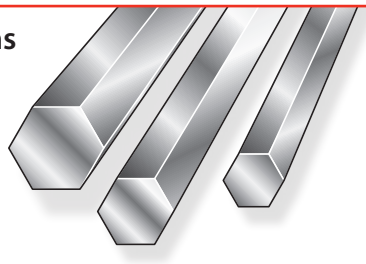
Flats

Squares

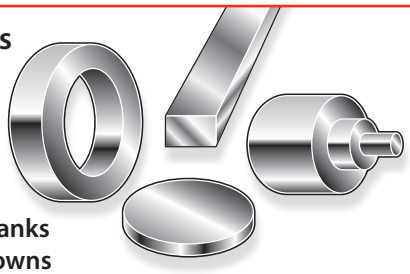


Plates

Hexagons



Specials



- Rings
- Blocks
- Gear blanks
- Step-downs

Durelloy Sizes Available For Immediate Shipment

Rounds			Squares	Hexagons	Flats			Plates
1/2	3-1/8	7-1/4	1-1/4	3/8	1/2 x 2	1-1/8 x 2-1/2	x 3-1/2	3/8 x 96 x 120
5/8	3-1/4	7-1/2	1-1/2	1/2	x 3	x 4-1/2	2 x 4	1/2 x 96 x 120
3/4	3-3/8	7-3/4	1-3/4	5/8	x 4	1-1/4 x 2	x 4-1/2	3/4 x 96 x 120
7/8	3-1/2	8	2	3/4	5/8 x 3	x 2-1/2	x 5	1 x 96 x 120
1	3-5/8	8-1/4	2-1/4	7/8	x 2-1/2	x 3	x 6	1-1/4 x 96 x 120
1-1/8	3-3/4	8-1/2	2-1/2	1	x 3	x 3-1/2	x 8	1-1/2 x 96 x 120
1-1/4	4	8-3/4	2-3/4	1-1/8	x 4	x 4	2-1/2 x 3	2 x 96 x 120
1-3/8	4-1/8	9	3	1-1/4	x 4-1/2	x 4-1/2	x 3-1/2	2-1/2 x 96 x 120
1-1/2	4-1/4	9-1/2	3-1/2	1-3/8	3/4 x 1	x 5	x 4	3 x 96 x 120
1-5/8	4-3/8	10	4	1-1/2	x 2	x 6	x 4-1/2	3-1/2 x 96 x 144
1-3/4	4-1/2	10-1/2	4-1/2	1-5/8	x 3	x 8	x 5	4 x 96 x 144
1-7/8	4-3/4	11	5	1-3/4	x 4	1-1/2 x 2	x 6	5 x 96 x 144
2	5	11-1/4	5-1/2	2	1 x 1-1/2	x 2-1/2	x 8	6 x 96 x 144
2-1/8	5-1/4	11-1/2	6	2-1/8	x 2	x 3	3 x 4	8 x 96 x 144
2-1/4	5-1/2	12	8	2-1/4	x 2-1/2	x 3-1/2	x 5	
2-3/8	5-3/4	14		2-3/8	x 3	x 4	x 6	
2-1/2	6	15-1/2		2-1/2	x 3-1/2	x 4-1/2	x 8	
2-5/8	6-1/4	16		2-3/4	x 4	x 5	3-1/2 x 8	
2-3/4	6-1/2	18		3	x 4-1/2	x 6	4 x 5	
2-7/8	6-3/4	20		3-1/4	x 5	x 8	x 6	
3	7	24		3-1/2	x 6	2 x 2-1/2	x 8	
						x 3		

Lengths: 18′-20′ or custom cut to size.

Mechanical Properties As stocked in the heat treated (hardened) condition

Tensile Strength PSI	Yield Point PSI	Elongated In 2″ %	Reduction Of Area %	Brinell Hardness BHN	Charpy V-Notch FT-LB
155/172,000	140/155,000	21.0/18.0	62/54	312/330	60/25

Properties are typical over a wide range of cross-sectional dimensions. Refer to following charts.

Tempering, Tensile, Yield Data

Section Size Inches	Tempering Temperature °F/°C	Tensile Strength PSI	Yield Point PSI	Elongated In 2″ %	Reduction Of Area %	Surface Hardness BHN	Charpy V-Notch FT-LB	Mid-Radius Hardness BHN
1	AQ	—	—	—	—	698	—	698
	800/427	246,500	234,000	12.5	48.5	480	13	480
	1000/538	198,250	189,500	18.5	58.0	412	22	412
	1200/649	166,500	154,750	20.5	60.8	302	54	302
2	AQ	—	—	—	—	660	—	660
	800/427	238,750	226,000	14.5	52.5	469	15	469
	1000/538	202,000	190,750	18.6	59.0	412	22	412
	1200/649	164,000	155,500	21.2	61.5	340	56	340
4	AQ	—	—	—	—	586	—	586
	800/427	222,000	208,500	16.0	54.0	442	20	440
	1000/538	196,750	184,500	19.0	60.5	410	25	402
	1200/649	162,250	154,000	21.5	64.0	336	58	332
6	AQ	—	—	—	—	498	—	488
	800/427	205,500	190,250	16.8	55.0	408	24	398
	1000/538	192,000	178,000	19.8	61.8	398	27	390
	1200/649	160,000	149,500	21.8	64.6	330	62	326
8	AQ	—	—	—	—	412	—	396
	800/427	198,750	183,500	18.2	56.2	396	24	390
	1000/538	190,500	172,500	20.5	62.5	388	28	380
	1200/649	154,500	146,250	22.0	65.5	322	68	316

Durelloy bar samples oil-quenched from 1550°F (843°C).

Normalized Air cooled from 1550°F – 1650°F (843°C – 899°C)

Section Size Inches	Tensile Strength PSI	Yield Point %	Elongated In 2″ %	Reduction Of Area %	Brinell Hardness BHN	Charpy V-Notch FT-LB
1	214,500	176,000	15.3	53.7	402	13
2	208,750	172,500	15.7	54.2	394	14
4	198,000	165,750	16.5	55.1	376	16
6	184,500	151,250	17.2	56.0	358	18
8	168,000	138,500	17.8	56.4	332	20

Annealed Slow cooled from 1600°F (871°C)

1	116,250	84,500	28.5	68.2	210	81

Critical Points

Heating At 50° Per Hour		Cooling At 50° Per Hour		
AC[1]	AC[3]	AR[3]	AR[1]	Ms
1360°F	1495°F	1350°F	1220°F	525°F
738°C	813°C	732°C	660°C	274°C

Forging

Heat thoroughly to 2250°F (1232°C) Max. Reheat as often as necessary to finish forging operation, but do not work below 1550°F (816°C). May be air-cooled *(normalized)* or oil-quenched after forging. For maximum properties, tempering is recommended prior to cooling below 150°F (66°C). Refer to *Metallurgical Data* for resultant properties.

Annealing

Heat to 1500°–1600°F (816°–871°C). Hold for 1 hour per inch of greatest thickness. Slow cool to 500°F (260°C). Air cool. Refer to *Metallurgical Data* for resultant properties.

Normalizing

Heat to 1550°–1650°F (843°–899°C). Soak thoroughly. Air cool. Refer to *Metallurgical Data* for resultant properties.

Hardening

- **Heating** Heat slowly and uniformly to 1550°–1650°F (843°–899°C). Hold for 1 hour per inch of greatest thickness. Soak thoroughly.
- **Quenching** Oil-quenching preferred. Agitate quenching medium as section size increases to accelerate process and provide more uniform cooling.
- **Tempering** All steels possess residual stresses and brittleness after normalizing or hardening by quenching, regardless of quenching medium. When possible, tempering is necessary to relieve these stresses and impart the required combination of strength and ductility (toughness). Tempering consists of heating to a temperature below the lower critical (AC1–1360°F), and holding for 1 hour per inch of greatest thickness. Follow tempering by cooling in still air.

Begin tempering before quenched section cools below 150°F.

Durelloy can be tempered in the range of 300°–1300°F (149°–704°C), depending on the application and final properties desired (wear vs. toughness ratio). The lower the tempering temperature, the higher the resultant hardness and resistance to wear. The higher the tempering temperature, the lower the resultant hardness and the greater the strength/toughness combination.

Hardness properties of .505" diameter test specimens,oil-quenched from 1550°F (843°C) and tempered as shown:

Tempering Temperature		Hardness
°F	°C	BHN
300	149	612
500	260	548
700	371	498
900	482	439
1100	593	365
1300	704	289

Refer to *Metallurgical Data* for resultant properties. Optimum properties depend on adequate facilities and processing. Duralloy-HT, from Ameralloy stock, should be used when possible.

surface hardening

Surface (Case) Hardening

• **Flame hardening** In some applications, it is desirable that surfaces subjected to extreme wear be harder than other surfaces of the same piece. The surfaces to be further hardened are heated with an oxyacetylene flame torch to a temperature of 1500°–1700°F (red/orange color), then rapidly quenched.

The exact quenching medium is determined by the percentage of heated surface. Small surfaces of larger pieces can simply be air-quenched because of rapid cooling due to the conduction of heat away from the small heated surface into the larger adjacent surfaces. Pieces with a larger percentage of surfaces to be hardened should be quenched by spraying with water. Residual heat after quenching will relieve hardening stresses.

This flame hardening process can yield hardenesses 0f 578–698 BHN with a hardness depth of up to 1/4".

• **Carburizing** Carburizing is the process of adding additional carbon to surface of steel by heating the metal to a temperature below its melting point in contact with carbonaceous solids *(pack-carburizing),* liquids *(liquid-carburizing),* or gases *(gas-carburizing).* High surface hardnesses are obtained while the core retains strength, ductility, and toughness.

Localized carburizing may also be accomplished by applying a protective coating which the carbon will not penetrate. Commercial pastes are widely available.

Durelloy carburizing case depths (inches), when carburized and quenched immediately in agitated oil and tempered at 300°–400°F. Resultant surface hardness of 615/700 BHN:

Hours	1550°F (843°C)	1650°F (899°C)	1750°F (954°C)	1850°F (1010°C)
2	.024	.034	.046	.062
4	.033	.047	.064	.089
6	.040	.058	.079	.109
8	.046	.067	.090	.123
10	.051	.072	.101	.137
12	.057	.079	.111	.151
16	.065	.089	.126	.172
20	.072	.101	.141	.192
24	.079	.111	.155	.208

Carburized at 1750°F for 8 hours. Quenched in agitated oil. Tempered at 300°F

Carburized at 1750°F for 8 hours. Quenched in agitated oil. Tempered at 400°F

Durelloy™
HEAT TREATED ALLOY

field welding data

Durelloy HR (hot roll) and Durelloy TGP heat treated alloy steel can be welded using standard welding methods.

No special electrode needed. Standard low-hydrogen rods recommended for maximum strengths. Most popular AWS designations are E7016, 7018, 10016 and (10018–preferred).

- Because of the carbon and other alloy elements, pre-heating to approximately (800 degrees) is recommended. Keep at pre-heated temperature during welding to prevent under-bed cracking.

- Welding rods should be clean and dry. Insure welding surface is clean. Hold inter-pass temperature at (800 degrees). Use minimum recommended arc voltage and amperage and reduce amperage slightly for secondary and finishing passes.

- Use the smallest-diameter electrode, rod or wire that will do the job.

- Travel slowly and straight.

- Use several small stringer beads rather than deposits. A weave bead of (2½) times the rod diameter can be used. Brush slag and dirt from the beads frequently.

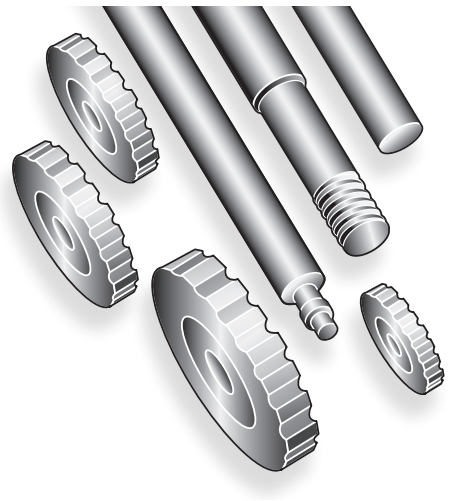
- When welding cracks, cracks should be U-ed not V-ed; sharp angles tend to induce cracking. Take care to grind away any and all existing cracks.

- To relieve welding stresses, a post-heat of approximately (400 degrees) should be maintained for (2) hours.

Durelloy-TGP™

HEAT TREATED ALLOY

Color Code:
ENDS RED



Durelloy-TGP is produced from Durelloy hot roll heat treat 28-32 Rc bars, then precision turned, ground, and flawlessly polished to exacting sizes. Durelloy-TGP eliminates costly machining to size at your plant, which helps reduce downtime. Durelloy-TGP allows you to produce long, straight keyways without bowing problems.

Features And Advantages

- Precision tuned, ground and polished
- Not cold drawn, free from drawing stresses
- Straightness guaranteed prior to shipment
- Good weldability
- Free machining
- Ultra fine grain microstructure
- Wear resistant
- Eliminates premature fatigue/failure due to hardness and high luster
- Stress relieved

Applications

- Arbors
- Gear shafts
- Journals
- Line shafts
- Lead screws
- Drive shafts
- Motor shafts
- Crank shafts
- Armature shafts
- Cement mill shafts
- Textile equipment
- Mining equipment
- Generator shafts
- Pinions
- Piston rods
- Push rods
- Spindles
- Feed screws
- Tie rods

Standard Tolerances

- Standard finish of 8 micro-inches
- 1/4" to 4" diameter: +.000" to -.002" tolerance
- Over 4" diameter: +.000" to -.003" tolerance
- Closer tolerance of +/- .0005" available

All shipments of Durelloy-TGP are specially oiled, then wrapped or tubed and delivered in perfect condition. All bars are inspected prior to shipping for straightness and tolerances.

Durelloy-TGP Rounds 1/8" Diameter Rounds in 1/16" Increments

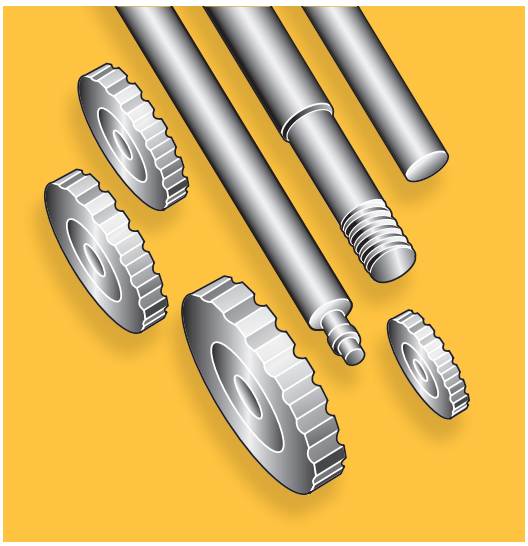
1/8	3/4	1-5/16	1-7/8	2-7/16	3	4	5-15/16
3/16	13/16	1-3/8	1-15/16	2-1/2	3-1/8	4-1/4	6
1/4	7/8	1-7/16	2	2-9/16	3-3/16	4-7/16	6-1/2
5/16	15/16	1-1/2	2-1/16	2-5/8	3-1/4	4-1/2	7
3/8	1	1-9/16	2-1/8	2-11/16	3-3/8	4-3/4	8
1/2	1-1/16	1-5/8	2-3/16	2-3/4	3-7/16	4-15/16	
9/16	1-1/8	1-11/16	2-1/4	2-13/16	3-1/2	5	
5/8	1-3/16	1-3/4	2-5/16	2-7/8	3-3/4	5-7/16	
11/16	1-1/4	1-13/16	2-3/8	2-15/16	3-15/16	5-1/2	

Lengths: 20' R/L. Larger sizes and metric sizes in stock.

Durelloy "Special 37"

38–42 Rc TGP

Color Code:
RED WITH YELLOW STRIPE



Ultra-High Hardness TGP

Durelloy "Special 37" TGP is produced from Durelloy hot roll heat treat 38-42 Rc bars, then precision turned, ground, and flawlessly polished to exacting sizes. "Special 37" TGP is designed for extreme wear-resistance applications.

Durelloy "Special 37" TGP increases the tensile strength to 186,000/196,000 and the yield to 178,000/176,500.

All shipments are specially oiled, wrapped or tubed, and delivered in perfect condition. All bars are inspected prior to shipping for straightness and tolerances.

Applications

- Arbors
- Gear shafts
- Journals
- Line shafts
- Drive shafts
- Motor shafts
- Crank shafts
- Armature
- Cement mill shafts
- Mining equipment
- Generator shafts
- Pinions
- Piston rods
- Push rods
- Spindles
- Tie rods

Features & Advantages

- Precision turned, ground and polished
- Not cold drawn, free from drawing stresses
- Straightness guaranteed prior to shipment
- Good weldability
- Free machining
- Ultra fine grain microstructure
- Excellent wear resistance
- Stress relieved

Standard Tolerances

- Standard finish of 8 micro-inches
- 3/8–6" (9.5–152 mm) dia: +.000" to -.002"

Durelloy-TGP "Special 37" Sizes

3/8	1	2-1/8
7/16	1-1/16	2-1/4
1/2	1-1/8	2-1/2
9/16	1-1/4	2-5/8
5/8	1-3/8	3
3/4	1-1/2	3-1/2
13/16	1-5/8	6
7/8	1-3/4	
15/16	2	

Lengths: 6' R/L in 3/8–9/16" diameter; 12' R/L in 5/8"–6".

Durelloy™

THREADED BAR

Color Code:
RED

Durelloy Threaded Bar is a precision rolled thread onto a heat treated alloy conforming to ASTM A 193-B-7 specifications. Durelloy Threaded Bar is delivered in a Brinell hardness of 280–300 for greater thread strength and wear resistance. The rolled threads guarantee strength and perfect fit for shock-resistant applications subject to high pressure, high temperatures, and repetitive tortional stresses.

Applications

- Studs
- Anchor bolts
- High compression bolts
- Adjustment bolts
- Pressure vessels
- Stud pullers
- Machine anchors
- Positioning rods

Features And Advantages

- Immediate usage, no machining required
- High tensile strength
- Precision rolled threads
- Heat treated to assure long, useful life
- All bars stocked in 12-foot lengths
- Conforms to ASTM specifications
- Eliminates multiple stocking

Types

- Unified Course
- SAE National Fine
- Unified 8 Thread
- Metric
- Acme
- Left Hand
- ASTM A320 L7

Typical Mechanical Properties

	Durelloy B-7	Durelloy B-16	Dura-Krome Stainless
Tensile strength psi minimum	150,000	166,000	100,000
Yield point psi minimum	132,000	150,000	40,000
Elongation in 2"	17%	18%	55%
Reduction of area	50%	55%	60%
Rockwell C hardness	28/30	26/34	20

Available Sizes For Immediate Shipment

Stock Sizes / Class 2 Fit (B–7)

Dia.	USS (Std.) Th/In.	SAE (Fine) Th/In.	8 Thd.	Dia.	USS (Std.) Th/In.	SAE (Fine) Th/In.	8 Thd.
1/4	20	28		1-1/4	7	12	8
5/16	18	24		1-3/8	6	12	8
3/8	16	24		1-1/2	6	12	8
7/16	14	20		1-5/8	5-1/2	12	8
1/2	13	20		1-3/4	5	12	8
9/16	12	18		1-7/8	5	12	8
5/8	11	18		2	4-1/2	12	8
3/4	10	16		2-1/4	4-1/2		8
7/8	9	14		2-1/2	4		8
1	8	14	8	2-3/4	4		8
1-1/8	7	12	8	3	4		8

Stock Sizes / Class 2 Fit (B–16)

Dia.	USS (Std.) Th/In.	SAE (Fine) Th/In.	Dia.	USS (Std.) Th/In.	SAE (Fine) Th/In.	8 Thd.
1/4	20	28	1	8	14	8
5/16	18	24	1-1/8	7	12	8
3/8	16	24	1-1/4	7	12	8
7/16	14	20	1-3/8	6	12	8
1/2	13	20	1-1/2	6	12	8
5/8	11	18				
3/4	10	16				
7/8	9	14				

Lengths: 12′ R/L. Over 3" thru 7" by special order.

Dura-Form™

BRAKE DIE

Color Code:
BLACK

Dura-Form is a heat treated tooling alloy which is oil-quenched and tempered to develop a full balance of mechanical properties. Dura-Form heat treated alloy has every requisite for excellent brake die service, high wear resistance, adequate toughness, high resistance to impact, and good machinability. Dura-Form is stress relieved before the final gag straightening process to ensure a minimum of residual stresses, and to eliminate warping and bowing.

Typical Analysis

- Carbon .48/.51
- Manganese .87/1.05
- Chromium 1.00/1.25
- Vanadium .20/.30
- Silicon .24/.35
- Molybdenum .25/.35

Heat Treatment

- **Forging** 1900°–2100°F, cool slowly
- **Annealing** 1400°–1450°F, Brinell 185–195
- **Normalizing** 1600°–1650°F
- **Hardening** 1500°–1600°F, oil-quench
- **Tempering** 300°– 1300°F, average hardness after heat treatment Brinell 241–601

Applications

- Bead-forming dies
- Bending dies
- Corrugating dies
- Double-decker dies
- Flanging dies
- Multi vee dies
- Offset dies
- Seaming dies

Features And Advantages

- Heat treated–ready to use
- Free machining
- Machine straightened
- High compressive strength
- Controlled analysis
- Hardened to Brinell 248–293
- High carbon content insures greater resistance to wear
- Machines to a smooth finish without grinding

Typical Mechanical Properties

Draw	300°F	500°F	800°F	1200°F	1300°F
Tensile	340,000	295,000	231,000	141,500	120,000
Yield psi	327,000	256,000	214,000	129,000	112,000
Elongation	9%	12%	11%	21%	24%
Red. area	24%	31%	33%	56%	60%
BHN	601	560	462	275	248
Rockwell C	58	56	47	28	25

Dura-Form Shapes And Sizes Available For Immediate Shipment

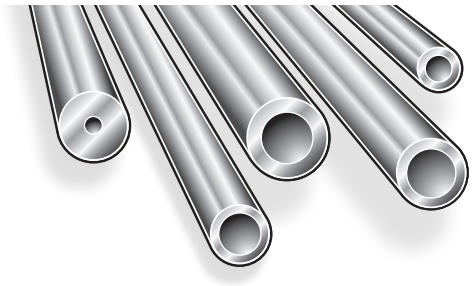
Squares		Flats						
1/2	3	**1/2**	**3/4**	x 3-1/2	x 4	x 4	x 4-1/2	**3**
5/8	3-1/2	x 2	x 1	x 4	x 4-1/2	x 4-1/2	x 5	x 4
1-1/8	4	x 3	x 2	x 4-1/2	x 5	x 5	x 6	x 5
1-1/4	4-1/2	x 4	x 3	x 5	x 6	x 6	x 8	x 6
1-1/2	5	**5/8**	x 4	x 6	x 8	x 8	**2-1/2**	**4**
1-3/4	5-1/2	x 2	**1**	**1-1/4**	**1-1/2**	**2**	x 3	x 5
2	6	x 2-1/2	x 1-1/2	x 2	x 2	x 2-1/2	x 3-1/2	x 6
2-1/4	8	x 4	x 2	x 2-1/2	x 2-1/2	x 3	x 4	x 8
2-1/2	10	x 4-1/2	x 2-1/2	x 3	x 3	x 3-1/2	x 5	
2-3/4			x 3	x 3-1/2	x 3-1/2	x 4	x 6	

Lengths: 20′ R/L. Available for immediate shipment.

Durelloy™

TUBING

Color Code:
RED



Durelloy Tubing is a fine grained alloy delivered with perfect concentricity and excellent machinability. When oil-quenched, Durelloy Tubing provides a tough core and excellent case hardness. Also available: Durelloy-FM and Durelloy-CD Tubing.

Applications

- Sleeves
- Slitters
- Spacers
- Ring gauges
- Punches
- Rings
- Bushings
- Bearings
- Collets
- Knives
- Wearing rolls
- Cams
- Ring dies
- Trimmers
- Rollers

Features And Advantages

- Fully annealed
- Fine grain structure
- Free machining
- Excellent weldability
- Tough core with case hardness

Typical Analysis

- Carbon .18/.25
- Manganese .50/.70
- Chromium .85/1.10
- Silicon .20/.35
- Molybdenum .25/.32

Heat Treatment

- **Case hardening** Direct quenching only
- **Carburizing** 1725°–1750°F
- **Oil-quench** Case: Rockwell C 58–62
- **Tempering** 300°– 330°F, case: Rc 58–62
- Above heat treatment produces course case
- Core hardness will be approx. Rc 20–35

Durelloy Tubing Sizes Available For Immediate Shipment

Tube Ident.	Outer Dia.	Wall Thickness	Inner Dia.	Tube Ident.	Outer Dia.	Wall Thickness	Inner Dia.	Tube Ident.	Outer Dia.	Wall Thickness	Inner Dia.	Tube Ident.	Outer Dia.	Wall Thickness	Inner Dia.
101	1	3/32	13/16	131	1-1/2	7/32	1-1/16	161	2	5/32	1-11/16	191	2-1/2	9/64	2-7/32
102	1	7/64	25/32	132	1-1/2	1/4	1	162	2	11/64	1-21/32	192	2-1/2	5/32	2-3/16
103	1	1/8	3/4	133	1-5/8	3/32	1-7/16	163	2	3/16	1-5/8	193	2-1/2	3/16	2-1/8
104	1	9/64	23/32	134	1-5/8	7/64	1-13/32	164	2	7/32	1-9/16	194	2-1/2	7/32	2-1/16
105	1	5/32	11/16	135	1-5/8	1/8	1-3/8	165	2	1/4	1-1/2	195	2-1/2	1/4	2
106	1	3/16	5/8	136	1-5/8	5/32	1-5/16	166	2	9/32	1-7/16	196	2-1/2	9/32	1-15/16
107	1-1/8	3/32	15/16	137	1-5/8	3/16	1-1/4	167	2	5/16	1-3/8	197	2-1/2	5/16	1-7/8
108	1-1/8	7/64	29/32	138	1-5/8	7/32	1-3/16	168	2	3/8	1-1/4	198	2-1/2	3/8	1-3/4
109	1-1/8	1/8	7/8	139	1-5/8	1/4	1-1/8	169	2-1/4	3/32	2-1/16	199	2-5/8	3/32	2-7/16
110	1-1/8	5/32	13/16	140	1-3/4	3/32	1-9/16	170	2-1/4	7/64	2-1/32	200	2-5/8	1/8	2-3/8
111	1-1/8	3/16	3/4	141	1-3/4	7/64	1-17/32	171	2-1/4	1/8	2	201	2-5/8	5/32	2-5/16
112	1-1/4	3/32	1-1/16	142	1-3/4	1/8	1-1/2	172	2-1/4	5/32	1-15/16	202	2-5/8	3/16	2-1/4
113	1-1/4	7/64	1-1/32	143	1-3/4	9/64	1-15/32	173	2-1/4	3/16	1-7/8	203	2-5/8	7/32	2-3/16
114	1-1/4	1/8	1	144	1-3/4	5/32	1-7/16	174	2-1/4	7/32	1-13/16	204	2-5/8	1/4	2-1/8
115	1-1/4	9/64	31/32	145	1-3/4	3/16	1-3/8	175	2-1/4	1/4	1-3/4	205	2-5/8	5/16	2
116	1-1/4	5/32	15/16	146	1-3/4	7/32	1-5/16	176	2-1/4	9/32	1-11/16	206	2-3/4	3/32	2-9/16
117	1-1/4	3/16	7/8	147	1-3/4	1/4	1-1/4	177	2-1/4	5/16	1-5/8	207	2-3/4	7/64	2-17/32
118	1-1/4	7/32	13/16	148	1-3/4	9/32	1-3/16	178	2-1/4	3/8	1-1/2	208	2-3/4	1/8	2-1/2
119	1-3/8	3/32	1-3/16	149	1-7/8	3/32	1-11/16	179	2-3/8	3/32	2-3/16	209	2-3/4	5/32	2-7/16
120	1-3/8	1/8	1-1/8	150	1-7/8	7/64	1-21/32	180	2-3/8	7/64	2-5/32	210	2-3/4	3/16	2-3/8
121	1-3/8	5/32	1-1/16	151	1-7/8	1/8	1-5/8	181	2-3/8	1/8	2-1/8	211	2-3/4	7/32	2-5/16
122	1-3/8	3/16	1	152	1-7/8	9/64	1-19/32	182	2-3/8	9/64	2-3/32	212	2-3/4	1/4	2-1/4
123	1-3/8	7/32	15/16	153	1-7/8	5/32	1-9/16	183	2-3/8	5/32	2-1/16	213	2-3/4	9/32	2-3/16
124	1-3/8	1/4	7/8	154	1-7/8	3/16	1-1/2	184	2-3/8	3/16	2	214	2-3/4	5/16	2-1/8
125	1-1/2	3/32	1-5/16	155	1-7/8	7/32	1-7/16	185	2-3/8	7/32	1-15/16	215	2-3/4	3/8	2
126	1-1/2	7/64	1-9/32	156	1-7/8	1/4	1-3/8	186	2-3/8	1/4	1-7/8	216	2-3/4	7/16	1-7/8
127	1-1/2	1/8	1-1/4	157	1-7/8	9/32	1-5/16	187	2-3/8	5/16	1-3/4	217	2-7/8	3/32	2-11/16
128	1-1/2	9/64	1-7/32	158	2	3/32	1-13/16	188	2-1/2	3/32	2-5/16	218	2-7/8	1/8	2-5/8
129	1-1/2	5/32	1-3/16	159	2	7/64	1-25/32	189	2-1/2	7/64	2-9/32	219	2-7/8	9/64	2-19/32
130	1-1/2	3/16	1-1/8	160	2	1/8	1-3/4	190	2-1/2	1/8	2-1/4	220	2-7/8	5/32	2-9/16

(continued)

Durelloy™
TUBING

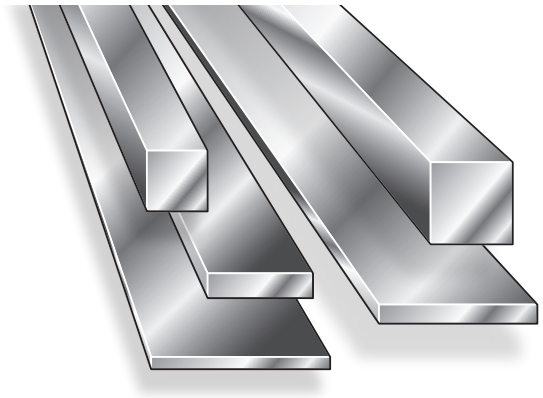
Durelloy Tubing Sizes Available For Immediate Shipment *(continued)*

Tube Ident.	Outer Dia.	Wall Thickness	Inner Dia.
221	2-7/8	3/16	2-1/2
222	2-7/8	7/32	2-7/16
223	2-7/8	1/4	2-3/8
224	2-7/8	9/32	2-5/16
225	2-7/8	5/16	2-1/4
226	2-7/8	3/8	2-1/8
227	3	3/32	2-13/16
228	3	7/64	2-25/32
229	3	1/8	2-3/4
230	3	5/32	2-11/16
231	3	3/16	2-5/8
232	3	7/32	2-9/16
233	3	1/4	2-1/2
234	3	9/32	2-7/16
235	3	5/16	2-3/8
236	3	3/8	2-1/4
237	3	7/16	2-1/8
238	3	1/2	2
239	3-1/4	3/32	3-1/16
240	3-1/4	7/64	3-1/32
241	3-1/4	1/2	3
242	3-1/4	9/64	2-31/32
243	3-1/4	5/32	2-15/16
244	3-1/4	3/16	2-7/8
245	3-1/4	7/32	2-13/16
246	3-1/4	1/4	2-3/4
247	3-1/4	9/32	2-11/16
248	3-1/4	5/16	2-5/8
249	3-1/4	3/8	2-1/2
250	3-1/4	7/16	2-3/8
251	3-1/4	1/2	2-1/4
252	3-1/2	3/32	3-5/16
253	3-1/2	7/64	3-9/32
254	3-1/2	1/8	3-1/4
255	3-1/2	9/64	3-7/32
256	3-1/2	5/32	3-3/16
257	3-1/2	3/16	3-1/8
258	3-1/2	7/32	3-1/16
259	3-1/2	1/4	3
260	3-1/2	9/32	2-15/16
261	3-1/2	5/16	2-7/8
262	3-1/2	3/8	2-3/4
263	3-1/2	7/16	2-5/8
264	3-1/2	1/2	2-1/2
265	3-5/8	3/32	3-7/16
266	3-5/8	1/8	3-1/2
267	3-5/8	5/32	3-5/16
268	3-5/8	3/16	3-1/4
269	3-5/8	7/32	3-3/16
270	3-5/8	1/4	3-1/8
271	3-5/8	3/8	2-7/8
272	3-5/8	7/16	2-3/4
273	3-3/4	3/32	3-9/16
274	3-3/4	1/8	3-1/2
275	3-3/4	5/32	3-7/16
276	3-3/4	3/16	3-3/8
277	3-3/4	7/32	3-5/16
278	3-3/4	1/4	3-1/4
279	3-3/4	5/16	3-1/8
280	3-3/4	3/8	3
281	3-3/4	7/16	2-7/8
282	3-3/4	1/2	2-3/4
283	3-7/8	3/32	3-11/16
284	3-7/8	1/8	3-5/8
285	3-7/8	5/32	3-9/16
286	3-7/8	3/16	3-1/2
287	3-7/8	1/4	3-3/8
288	3-7/8	5/16	3-1/4
289	3-7/8	3/8	3-1/8
290	4	3/32	3-13/16
291	4	7/64	3-25/32
292	4	1/8	3-3/4
293	4	9/64	3-23/32
294	4	5/32	3-11/16
295	4	3/16	3-5/8
296	4	1/4	3-1/2
297	4	9/32	3-7/16
298	4	5/16	3-3/8
299	4	3/8	3-1/4
300	4	7/16	3-1/8
301	4	1/2	3
302	4	5/8	2-3/4
303	4-1/4	3/32	4-1/16
304	4-1/4	7/64	4-1/32
305	4-1/4	1/8	4
306	4-1/4	5/32	3-15/16
307	4-1/4	3/16	3-7/8
308	4-1/4	7/32	3-13/16
309	4-1/4	1/4	3-3/4
310	4-1/4	5/16	3-5/8
311	4-1/4	3/8	3-1/2
312	4-1/4	7/16	3-3/8
313	4-1/4	1/2	3-1/4
314	4-1/4	9/16	3-1/8
315	4-1/4	5/8	3
316	4-1/2	3/32	4-5/16
317	4-1/2	1/8	4-1/4
318	4-1/2	5/32	4-3/16
319	4-1/2	3/16	4-1/8
320	4-1/2	7/32	4-1/16
321	4-1/2	1/4	4
322	4-1/2	5/16	3-7/8
323	4-1/2	3/8	3-3/4
324	4-1/2	7/16	3-5/8
325	4-1/2	1/2	3-1/2
326	4-1/2	5/8	3-1/4
327	4-1/2	3/4	3
328	4-3/4	3/32	4-9/16
329	4-3/4	1/8	4-1/2
330	4-3/4	5/32	4-7/16
331	4-3/4	3/16	4-3/8
332	4-3/4	1/4	4-1/4
333	4-3/4	5/16	4-1/8
334	4-3/4	3/8	4
335	4-3/4	7/16	3-7/8
336	4-3/4	1/2	3-3/4
337	5	3/32	4-13/16
338	5	1/8	4-3/4
339	5	5/32	4-11/16
340	5	3/16	4-5/8
341	5	7/32	4-9/16
342	5	1/4	4-1/2
343	5	5/16	4-3/8
344	5	3/8	4-1/4
345	5	7/16	4-1/8
346	5	1/2	4
347	5	5/8	3-3/4
348	5	3/4	3-1/2
349	5-1/4	3/32	5-1/16
350	5-1/4	1/8	5
351	5-1/4	5/32	4-15/16
352	5-1/4	3/16	4-7/8
353	5-1/4	1/4	4-3/4
354	5-1/4	5/16	4-5/8
355	5-1/4	3/8	4-1/2
356	5-1/4	7/16	4-3/8
357	5-1/4	1/2	4-1/4
358	5-1/4	5/8	4
359	5-1/2	3/32	5-5/16
360	5-1/2	1/8	5-1/4
361	5-1/2	5/32	5-3/16
362	5-1/2	3/16	5-1/8
363	5-1/2	1/4	5
364	5-1/2	5/16	4-7/8
365	5-1/2	3/8	4-3/4
366	5-1/2	7/16	4-5/8
367	5-1/2	1/2	4-1/2
368	5-1/2	9/16	4-3/8
369	5-1/2	5/8	4-1/4
370	5-1/2	3/4	4
371	5-3/4	3/32	5-9/16
372	5-3/4	1/8	5-1/2
373	5-3/4	3/16	5-3/8
374	5-3/4	1/4	5-1/4
375	5-3/4	5/16	5-1/8
376	5-3/4	3/8	5
377	5-3/4	7/16	4-7/8
378	5-3/4	1/2	4-3/4
379	6	3/32	5-13/16
380	6	1/8	5-3/4
381	6	5/32	5-11/16
382	6	3/16	5-5/8
383	6	1/4	5-1/2
384	6	5/16	5-3/8
385	6	3/8	5-1/4
386	6	7/16	5-1/8
387	6	1/2	5
388	6	9/16	4-7/8
389	6	5/8	4-3/4
390	6	3/4	4-1/2
391	6-1/4	3/32	6-1/16
392	6-1/4	1/8	6
393	6-1/4	3/16	5-7/8
394	6-1/4	1/4	5-3/4
395	6-1/4	5/16	5-5/8
396	6-1/4	3/8	5-1/2
397	6-1/4	1/2	5-1/4
398	6-1/4	5/8	5
399	6-1/2	3/32	6-5/16
400	6-1/2	1/8	6-1/4
401	6-1/2	1/4	6
402	6-1/2	5/16	5-7/8
403	6-1/2	3/8	5-3/4
404	6-1/2	1/2	5-1/2
405	6-1/2	5/8	5-1/4
406	6-1/2	3/4	5
407	6-3/4	3/32	6-9/16
408	6-3/4	1/8	6-1/2
409	6-3/4	3/16	6-3/8
410	6-3/4	1/4	6-1/4
411	6-3/4	5/16	6-1/8
412	6-3/4	3/8	6
413	6-3/4	7/16	5-7/8
414	6-3/4	1/2	5-3/4
415	6-3/4	3/4	5-1/4
416	7	3/32	6-13/16
417	7	1/8	6-3/4
418	7	3/16	6-5/8
419	7	1/4	6-1/2
420	7	5/16	6-3/8
421	7	3/8	6-1/4
422	7	1/2	6
423	7	5/8	5-3/4
424	7	3/4	5-1/2
425	7-1/4	1/8	7
426	7-1/4	3/16	6-7/8
427	7-1/4	1/4	6-3/4
428	7-1/4	5/16	6-5/8
429	7-1/4	3/8	6-1/2
430	7-1/4	1/2	6-1/4
431	7-1/2	3/32	7-5/16
432	7-1/2	1/8	7-1/4
433	7-1/2	3/16	7-1/8
434	7-1/2	1/4	7
435	7-1/2	5/16	6-7/8
436	7-1/2	3/8	6-3/4
437	7-1/2	1/2	6-1/2
438	7-1/2	3/4	6
439	7-3/4	1/8	7-1/2
440	7-3/4	3/16	7-3/8
441	7-3/4	1/4	7-1/4
442	7-3/4	5/16	7-1/8
443	7-3/4	3/8	7
444	7-3/4	1/2	6-3/4
445	7-3/4	3/4	6-1/4
446	8	3/32	7-13/16
447	8	1/8	7-3/4
448	8	3/16	7-5/8
449	8	1/4	7-1/2
450	8	3/8	7-1/4
451	8	1/2	7
452	8	9/16	6-7/8
453	8	5/8	6-3/4
454	8	3/4	6-1/2
455	8-1/4	1/8	8
456	8-1/4	1/4	7-3/4
457	8-1/4	3/8	7-1/2
458	8-1/4	1/2	7-1/4
459	8-1/2	1/8	7-1/4
460	8-1/2	3/16	8-1/8
461	8-1/2	1/4	8
462	8-1/2	3/8	7-3/4
463	8-1/2	1/2	7-1/2
464	8-1/2	5/8	7-1/4
465	8-1/2	3/4	7
466	9	1/8	8-3/4
467	9	3/16	8-5/8
468	9	1/4	8-1/2
469	9	3/8	8-1/4
470	9	7/16	8-1/8
471	9	1/2	8
472	9	5/8	7-3/4
473	9	3/4	7-1/2
474	9-1/2	1/8	9-1/4
475	9-1/2	3/16	9-1/8
476	9-1/2	1/4	9
477	9-1/2	3/8	8-3/4
478	9-1/2	1/2	8-1/2
479	9-1/2	9/16	8-3/8
480	9-1/2	3/4	8
481	10	1/8	9-1/4
482	10	3/16	9-5/8
483	10	1/4	9-1/2
484	10	3/8	9-1/4
485	10	1/2	9
486	10	5/8	8-7/8
487	10	3/4	8-1/2
488	10-1/2	1/8	10-1/4
489	10-1/2	3/16	10-1/8
490	10-1/2	1/4	10
491	10-1/2	3/8	9-3/4
492	10-1/2	1/2	9-1/2
493	10-1/2	3/4	9
494	11	3/16	10-5/8
495	11	1/4	10-1/2
496	11	3/8	10-1/4
497	11	1/2	10
498	11-3/4	3/16	11-3/8
499	11-3/4	1/4	11-1/4
500	11-3/4	3/8	11
501	11-3/4	1/2	10-3/4
502	11-3/4	9/16	10-5/8
503	11-3/4	5/8	10-1/2
504	11-3/4	11/16	10-3/8
505	11-3/4	3/4	10-1/4
506	11-3/4	1	9-3/4
507	12	1/8	11-3/4
508	12	3/16	11-5/8
509	12	1/4	11-1/2
510	12	3/8	11-1/4
511	12	1/2	11
512	12	5/8	10-3/4
513	12	3/4	10-1/2
514	12-3/4	1/8	12-1/2
515	12-3/4	3/16	12-3/8
516	12-3/4	1/4	12-1/4
517	12-3/4	1/2	11-3/4
518	12-3/4	9/16	11-5/8
519	12-3/4	3/4	11-1/4

Durelloy™

KEY STOCK

Color Code:
ENDS RED



Durelloy Key Stock bars are sharp-cornered with parallel sides, for applications such as keys, tool shanks gauges and wear strips. For areas requiring close tolerance and high tensile strength. All bars are cold drawn.

Features And Advantages

- Closer tolerance +.001–.000
- Square corner
- High shear strength

Mechanical Properties

- **Hardness** Rockwell C 24–28
- **Tensile strength** 115,000–135,000
- **Shear strength** 70,000–80,000

Durelloy Key Stock Sizes Available For Immediate Shipment

Squares			Flats				
1/8	3/4	1-1/2	**1/8**	x 7/16	**1/2**	**1**	**1-1/2**
3/16	13/16	1-5/8	x 3/16	x 1/2	x 5/8	x 1-1/4	x 1-3/4
1/4	7/8	1-3/4	x 1/4	**1/4**	x 3/4	x 1-1/2	x 2
5/16	15/16	2	x 5/16	x 1/2	x 1	x 1-3/4	x 2-1/2
3/8	1		x 3/8	x 3/4	x 1-1/4	x 2	**1-3/4**
7/16	1-1/16		x 7/16	**3/8**	x 1-1/2	x 2-1/4	x 2
1/2	1-1/8		x 1/2	x 1/2	x 2	**1-1/4**	
9/16	1-3/16		x 5/8	x 5/8	**5/8**	x 1-1/2	
5/8	1-1/4		x 3/4	x 3/4	x 3/4	x 1-3/4	
11/16	1-3/8		x 3/8	x 1	x 1	x 2	

Lengths: 12′ minimum. Special sizes not shown in stock can be ground to order. Metric sizes available.

Ameralloy®

CASE HARDENED CHROME

Ameralloy Case Hardened Chrome has a standard .0005 chrome thickness. Special diameter tolerance can be produced to your specifications with any base material or thickness of chrome you require.

Features And Advantages

- Precision turned, ground and polished
- 1040 / 1050 base material
- Induction hardened to a depth of .090 max.
- 55–60 Rc surface hardness
- 125,000 PSI core yield strength
- Free from drawing stresses
- Straightness guaranteed
- Wear resistant
- Stress relieved

Applications

- Piston shafting
- Guide rods
- Pivot pins

Standard Tolerances

- Standard Chrome finish of .0005
- 1/4" to 1-1/2" +.000" to -.0015"
- 1-9/16" to 2-7/16" +.000" to -.002"
- 2-1/2" to 3" +.000" to -.0025"
- 3-1/16" to 4" +.000" to -.0035"
- 4-1/16 to 6" +.000" to -.005"
- Over 6" +.000" to -.007"

All shipments are specially oiled, wrapped or tubed, and delivered in perfect condition. All bars are inspected prior to shipping for straightness and tolerances.

Case Hardened Chrome Rounds

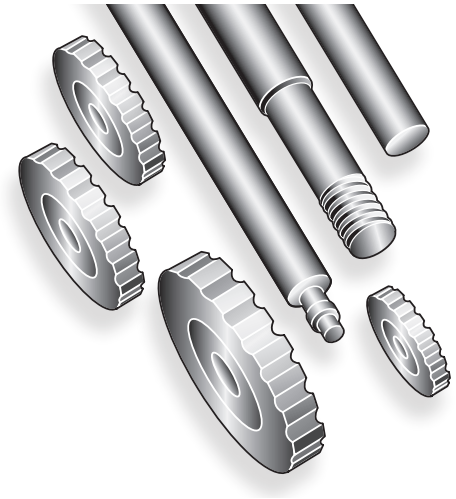
1/4	2	4
1/2	2-1/8	4-1/4
9/16	2-1/4	4-1/2
5/8	2-3/8	4-3/4
3/4	2-1/2	5
7/8	2-5/8	5-1/4
1	2-3/4	5-1/2
1-1/8	3	5-3/4
1-1/4	3-1/4	6
1-3/8	3-1/2	
1-1/2	3-5/8	
1-5/8	3-3/4	
1-3/4		
1-7/8		

Lengths: 12' & 20' R/L. Can be cut to non standard lengths.

Durelloy™

METRIC TGP

Color Code:
ENDS RED



Durelloy Metric TGP is produced from Durelloy hot roll heat treat 28-32 Rc bars, then precision turned, ground, and flawlessly polished to exacting sizes. Durelloy Metric TGP eliminates costly machining to size at your plant, which helps reduce downtime. Durelloy Metric TGP allows you to produce long, straight keyways without bowing problems.

Features And Advantages

- Precision tuned, ground and polished
- Not cold drawn, free from drawing stresses
- Straightness guaranteed prior to shipment
- Good weldability
- Free machining
- Ultra fine grain microstructure
- Wear resistant
- Eliminates premature fatigue/failure due to hardness and high luster
- Stress relieved

Applications

- Arbors
- Gear shafts
- Journals
- Line shafts
- Lead screws
- Drive shafts
- Motor shafts
- Crank shafts
- Armature shafts
- Cement mill shafts
- Textile equipment
- Mining equipment
- Generator shafts
- Pinions
- Piston rods
- Push rods
- Spindles
- Feed screws
- Tie rods

Standard Tolerances

- 1mm to 100mm +.000" to -.002"
- Over 100mm +.000" to -.003"
- Closer tolerances available upon request

All shipments are specially oiled, wrapped or tubed, and delivered in perfect condition. All bars are inspected prior to shipping for straightness and tolerances.

Durelloy Metric TGP Rounds

4 mm	17 mm	30 mm	50 mm
5 mm	18 mm	31 mm	60 mm
6 mm	19 mm	32 mm	65 mm
7 mm	20 mm	33 mm	70 mm
8 mm	21 mm	34 mm	80 mm
9 mm	22 mm	35 mm	
10 mm	23 mm	36 mm	
11 mm	24 mm	37 mm	
12 mm	25 mm	38 mm	
13 mm	26 mm	39 mm	
14 mm	27 mm	40 mm	
15 mm	28 mm	41 mm	
16 mm	29 mm	45 mm	

Lengths: 12' R/L. Larger sizes in stock.

Durelloy™

METRIC KEY STOCK

Color Code:
ENDS RED

Durelloy Key Stock bars are sharp-cornered with parallel sides, for applications such as keys, tool shanks gauges and wear strips. For areas requiring close tolerance and high tensile strength. All bars are cold drawn.

Features And Advantages

- Closer tolerance +.001–.000″
- Square corner
- High shear strength

Mechanical Properties

- **Hardness** Rockwell C 24–28
- **Tensile strength** 115,000–135,000
- **Shear strength** 70,000–80,000

Durelloy Key Stock Metric Sizes Available For Immediate Shipment

Squares And Flats

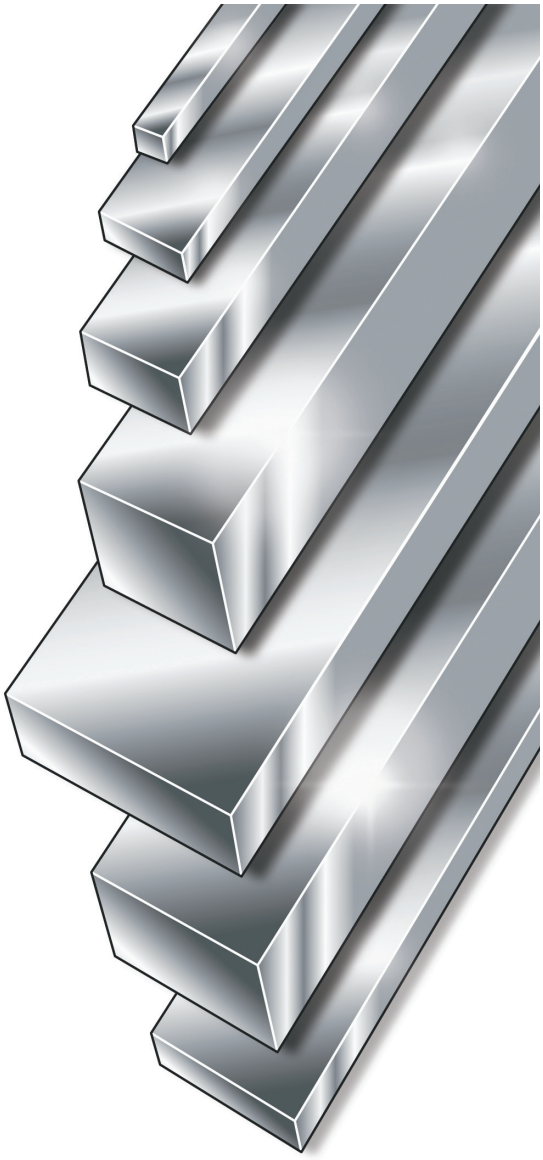
3 x 3 mm	6 x 8 mm	8 x 10 mm	10 x 18 mm	14 x 25 mm
3 x 5 mm	6 x 10 mm	8 x 12 mm	10 x 20 mm	16 x 16 mm
3 x 6 mm	6 x 12 mm	8 x 16 mm	11 x 11 mm	18 x 18 mm
4 x 4 mm	6 x 14 mm	8 x 20 mm	11 x 18 mm	20 x 20 mm
4 x 6 mm	7 x 7 mm	9 x 14 mm	12 x 12 mm	25 x 25 mm
5 x 5 mm	7 x 8 mm	10 x 10 mm	12 z 20 mm	
5 x 8 mm	7 x 18 mm	10 x 12 mm	14 x 14 mm	
6 x 6 mm	8 x 8 mm	10 x 16 mm	14 x 22 mm	

Lengths: 1 and 3 meter lengths. Special sizes ground to order.

Durelloy-PM™

PRE-MACHINED HEAT TREATED ALLOY

Color Code:
ENDS RED



Durelloy pre-machined is a fine grained, stress relieved, electric furnace alloy. It is heat treated to Rockwell C 28–32, Blanchard ground top and bottom +.020/.030 – .000, width +1/8" – .000.

A machinability rating of 80% means Durelloy-PM is ready for use in most tooling applications with no further heat treating. Durelloy-PM can be flame-hardened to 578/698 BHN for applications in which a higher hardness is required at wear points.

Applications

- Base plates
- Backup plates
- Bolsters
- Fixtures
- Guides
- Holder blocks
- Peenable dies
- Punch pads
- Strippers
- Jigs
- Molds

Available Sizes

- **Thickness** 1/2"–5" custom grinds to 20"
- **Widths** 2"–24" custom grinds to 96"
- **Lengths** 60"–72" custom grinds to 120" and 144"
- **Custom sizes** Available upon request