

Mirraloy™ TG&P

Heat Treated, Turned Ground and Polished, High Strength Alloy

Mirraloy TG&P is a precision finished alloy steel manufactured to stringent quality standards. By employing “Clean Steel Technology”, we are able to provide a product free of many impurities that cause other products to fail due to fatigue.

Mirraloy TG&P provides high physical properties without requiring additional heat treatment and grinding. **Mirraloy TG&P** gives the tool room or maintenance person(s), one product for multiple uses in various applications.

(Past Protected Trade Name of
Ludlow Steel Company – Centrex® TG&P)



PRECISION FINISH – “NEAR” BEARING FIT

Advantages of Mirraloy TG&P

- **Electric Furnace Melt** – provides greater quality control at the mill and allows refinement of chemistry, grain size and shape.
- **Vacuum Degassed** – eliminates many impurities found in standard commercial grade alloys. The result is a better, cleaner and stronger product that extends service life.
- **Heat Treated** – eliminates excessive cost in heat treatment. Our material is thermally treated (as delivered) to a hardness of 269/321 BHN.
- **Machine Straightened** – eliminates excessive bow and distortion. Our standard straightness is 1/8” in any 5 feet, better than twice the industry standard for a hot roll quench and tempered product.
- **Stress Relieved** – reduces the likelihood of material “walking” or moving during machining.
- **Turned, Ground and Polished** – precision finish for greater accuracy of dimension and tolerance. A finish of approx. 15 RMS is typical for this product.



Mirraloy TG&P, recommend by engineers to extend service life for shafting applications where distortion and fatigue are concerns.

For all **METRIC SHAFTING** please review our **Mirraloy FM Metric** product on page 22.

Please see page 21, for information regarding **Mirraloy FM TG&P**.

Please see page 23, for information regarding **Mirraloy FM Pre-Keyed**.

Boxing is recommended for surface critical bar products.

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Available Stock Sizes*

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

* Small diameter shafts may have modified analysis and/or variations in thermal treatment.

Welding Information

Please see page 11 in this technical reference book.

Machining Data

Please see page 8 in this technical reference book.

Benefits of Mirraloy TG&P

Refined Chemistry, High Strength, Fatigue Resistant, Precision Finish – Near Bearing Fit, and Longer Service Life

Typical Physical Properties*

Brinell Hardness	269/321 BHN
Tensile Strength	156,000 P.S.I.
Yield Strength.....	123,500 P.S.I.
Grain Size95% - 8
Elongation	17%
Reduction of Area	50%

*Based upon 1/2" Diameter Test Specimen

Bright Surface Finish Approximately 15 RMS

Diameter Tolerances*

1/4" Round to 1-1/2" Round	(+.000"/-.001")
Over 1-1/2" Round to 2-1/2" Round	(+.000"/-.0015")
Over 2-1/2" Round to 3" Round	(+.000"/-.002")
Over 3" Round to 4" Round	(+.000"/-.003")
Over 4" Round to 7" Round	(+.000"/-.004")
Over 7" Round and Above	Call for details

* Above tolerances are typical, if special diameter tolerance is required please contact our office.

Available Stock Lengths

Custom Cut Lengths
10 Ft to 12 Ft Random Lengths
20 Ft to 24 Ft Random Lengths

Typical Applications

Arbors	Guide Pins	Push Rods
Cement Mill Shafts	Journals	Shear Pins
Crank Shafts	Lead Screws	Single Dia. Shafts
Die Blocks	Line Shafts	Spindles
Drift Pins	Pinions	Tie Rods
Drive Shafts	Piston Rods	Textile Mach. Parts
Feed Screws	Pump Shafts	Worms

Boxing is recommended for all surface critical bar products.