

Timken Boring Specialties Pre-Drilled 4145M Material

TIMKEN
Where You Turn

Pre-Drilled Products Available Sizes

OD inches	ID inches	OD mm	ID mm
3 1/8	1	79.4	25.4
	1 1/4		31.8
	1 1/2		38.1
3 1/2	1	89.0	25.4
	1 1/2		38.1
4 3/4	1 1/2	120.6	38.1
	2 1/4		57.2
	2 11/16		68.3
5	1 1/2	127.0	38.1
	2		50.8
	2 1/2		63.5
	2 9/16		65.1
	2 11/16		68.3
5 1/4	2 9/16	133.4	65.1
5 1/2	1 1/2	139.7	38.1
	2		50.8
	2 1/2		63.5
	2 9/16		65.1
	2 11/16		68.3
6 1/4	2 1/4	158.8	57.2
	2 13/16		71.4
	2 1/4		57.2
	2 13/16		71.5
6 3/4	2 1/4	171.5	57.2
	2 13/16		71.5
7	2 13/16	177.8	71.5
	3		76.2
	4		101.6
7 1/4	2 13/16	184.2	71.5
	4		101.6
7 3/4	2 13/16	196.9	71.5
8	2 13/16	203.2	71.5
8 1/4	2 13/16	209.6	71.5
8 1/2	2 13/16	215.9	71.5
	4		101.6
9	2 13/16	228.6	71.5
9 1/2	2 13/16	241.3	71.5
	3		76.2
10	2 13/16	254.0	71.5
11	2 13/16	279.4	71.5

In random lengths of 14 to 31 feet (4.3 to 9.4 m).
Please see reverse side for additional capabilities.

The Timken Company has long been known for high-quality alloy steel tubing and bar products. By combining high-quality steel, heat treatment and machining capabilities, Timken Boring Specialties offers a simplified, cost-effective supply chain, making it quick and easy to purchase small quantities or heat lots of drilled 4145M bar. The inventory is strategically located in Houston, Texas, to meet the global oilfield's rapid response requirements.

Pre-Drilled Inventory

Condition

- Hot-rolled, quenched and tempered

Quality

- 4145M to specification API 7 for chemistry, mechanical properties and full-length ultrasonic inspection only

Typical Mechanical Properties

- Tensile – 135,000 psi (930 MPa) min
- Yield – 110,000 psi (760 MPa) min
- Charpy V-Notch Impact at RT (20° C)
Longitudinal: 40 ft-lbs (54 J) min
Transverse: 20 ft-lbs (27 J) min
- Hardness – 285/341 BHN

Benefits

- Uniform material chemistry
- Consistent mechanical properties
- Less than heat lot quantities
- Industry common sizes for immediate shipment
- Custom sizes also available

Size Range

- OD: 3.00 in. to 11.00 in. (76.2 mm to 279.4 mm)
- ID: 1.00 in. to 4.00 in. (25.4 mm to 101.6 mm)

Hole Making Services

With its experience, manufacturing capacity and equipment capabilities, Timken Boring Specialties is uniquely positioned to meet customer specifications and requirements for deep hole making. Timken Boring Specialties is capable of drilling or trepanning an infinite number of hole sizes in bars and tubes in lengths up to 50 feet (15 meters).

Hole Finishing Services

Timken Boring Specialties operates precision boring, honing, pull boring, skiving, OD turning, and milling equipment. These services can all be performed at one location.

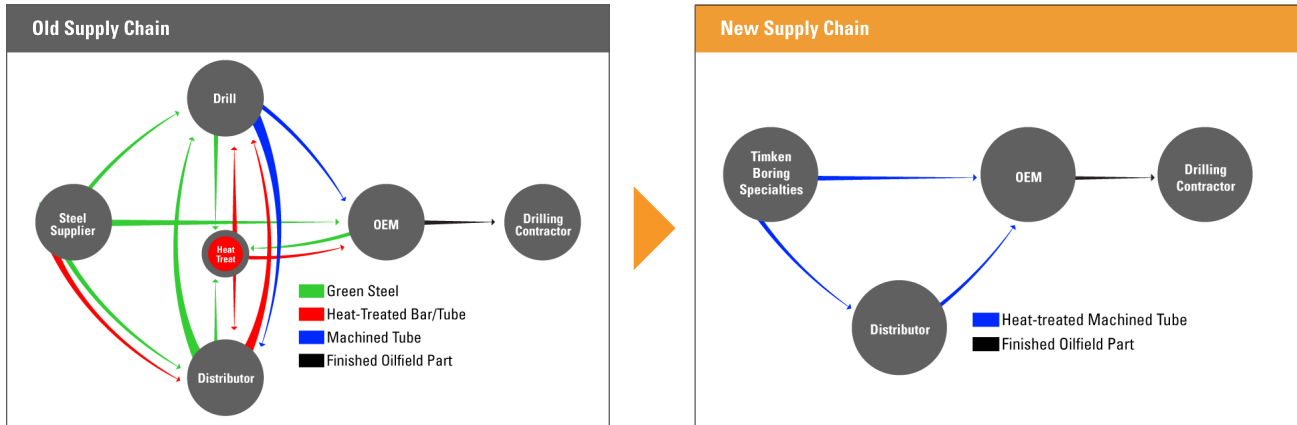


Timken Boring Specialties

Combining high-quality steel, heat-treating and machining capabilities to meet or exceed tough oilfield drilling and completion component requirements.

	Hole Making	Boring	Hole Finishing
ID	To 13 in. (330 mm)	To 13 in. (330 mm)	To 13 in. (330 mm)
ID Tolerance	+/- 0.015 in. (0.38 mm)	+/- 0.010 in. (0.25 mm)	+0.005/-0.0 in. (0.13 mm)
Length	To 50 ft. (15 m)	To 35 ft. (11 m)	To 35 ft. (11 m)

Supply Chain

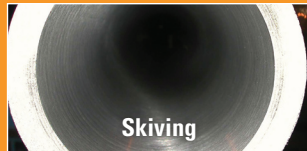


For energy market challenges and business solutions that impact the bottom line, customers turn to Timken Boring Specialties for expertise and guidance. Working together means Timken Boring Specialties customers receive an economical, convenient and quality turn-key solution for materials, machining and project management.

Timken Boring Specialties creates a unique, simplified and cost-effective supply chain by using single point material and machining sourcing for the distributor and OEM.

Timken Boring Specialties combines high-quality steel and value-added machining expertise.

- Trepanning
- Step Boring
- Pull Boring
- Honing
- Skiving
- Turning
- Bar Straightening
- Sawing
- Milling



Timken is Where You Turn™ for innovation, quality, and value-added options to help your products perform more efficiently and improve performance.

For more information on Timken Boring Specialties call (+44) 1530-512680; fax (+44) 1530-512681 or visit our Web site, www.timken.com/products/alloysteel.

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