

**BORUBAR**



## COLD DRAWN SEAMLESS STEEL TUBES



\* Cold Drawing Available For Diameters:

6mm to 400 mm

\* Cold Drawing Available For Lengths:

6 m to 13 m



*Annual cold drawing capacity 10 000 tons*

## Cold Drawing Tubes For Hydraulic Telescopic Cylinders

### Main material:

Seamless St52 E 355 SR or St 52 BK S

Mono action telescopic for trucks Inner surface is ready for to use and the *ID tolerance is 0,00 + 0,20 mm*

Outer diameter comes with 2 mm remove stock for machining, grinding and chrome plating purposes.

In-stock Standard Sizes are as Follows:



36 x 57 mm
60 x 77 mm
80 x 97 mm
100 x 117 mm
120 x 137 mm
140 x 162 mm
165 x 188 mm
190 x 215 mm

Short length telescopic tubes, for agricultural machinery and other uses, are also available.

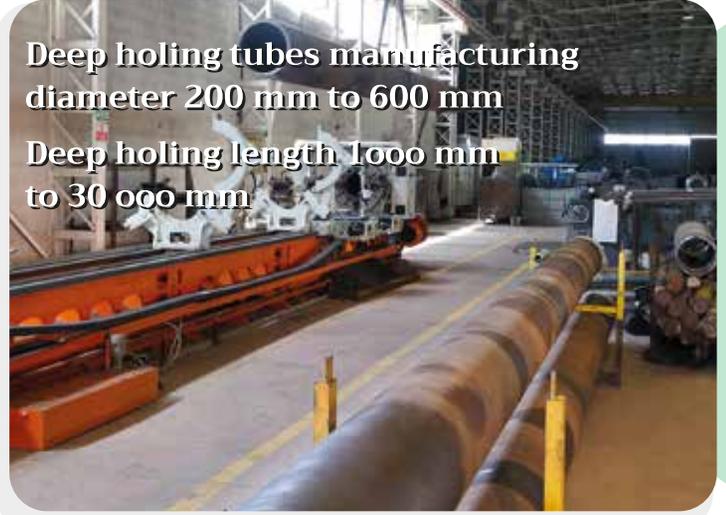
Inner surfaces of these tubes are ready-to-use and Outer diameter comes with 1 mm remove stock for machining , grinding and chrome plating purposes.

1- 50 x 61 mm
2- 65 x 76 mm
3- 80 x 91 mm
4- 95 x 106 mm
5- 110 x 126 mm
6- 130 x 145 mm

63 H8 mm x 77 mm
90 H8 mm x 107 mm
120 H8 mm x 137 mm

Double action telescopic cylinders, for garbage trucks and other purposes, are also available. Inner surfaces of these tubes are honed or burnished to have Ra 0,4-0,8 micron roughness. Outer surfaces have 2 mm remove stock for machining, grinding and chrome plating purposes.

Deep holing tubes manufacturing  
diameter 200 mm to 600 mm  
Deep holing length 1000 mm  
to 30 000 mm





### Main material:

*St52 BK+S (E355 SR)*

After cold drawing the tubes are subjected to stress relief heat treatment.

*We offer 2 types of production*

*\* Ready for honing tubes:*

*ID tolerance -0, 2 mm -0,3 mm*

*\* Ready for burnishing tubes:*

*ID tolerance -0,6 mm – 0,9 mm*

*Please see H8 Tube sizes.*

The tubes are cold drawn, heat treated and straightened (1/1000)

*Diameter range:*

50 mm to 400 mm

*Standard length is 6m-9m;*

We offer tubes upto 14 meters by request.



Hydraulic cylinder tubes ID burnished, H8 seamless steel tubes are for hydraulic cylinders.

## Standart Lenght:

6m -9 m (tubes upto 14m are available by request )

*Diameter:* 50 mm to 400 mm

## Surface Raughness:

*0,4 micron – 0,8 micron* Inner surfaces of the tubes are oiled for to prevent oxidation six months.



40x50 mm	100x125mm	160x185mm
50x60 mm	110x125mm	160x190mm
50x65 mm	110x130mm	170x200mm
60x70 mm	115x130mm	180x200mm
60x75 mm	120x135mm	180x210mm
60x80 mm	120x140mm	190x215mm
70x80 mm	120x145mm	200x220mm <sup>2</sup>
70x85 mm	125x140mm	00x230mm
70x90 mm	125x150mm	200x245mm <sup>2</sup>
75x90 mm	130x150mm	20x245mm <sup>22</sup>
80x90 mm	130x160mm	0x270mm <sup>250</sup>
80x95 mm	140x160mm	x280mm
80x100mm	140x170mm	250x300 mm
90x105mm	140x165mm	280x325 mm
90x110mm	150x170mm	300x350mm <sup>3</sup>
100x115mm	150x180mm	20x377mm
100x120mm	160x180mm	350x400mm

## CIRQUIT PIPES FOR OIL TRANSFERING

### Main materials

St 37.4 seamless steel tubes.

This cirquit pipe has normalized condition after cold drawing.

To band is very easy and during the bending they have not cracks bcs of normalized.

6 x 1 mm	14 x 2mm	25 x 2 mm
8 x 1 mm	15 x 2mm	25 x 2,5 mm
10 x 1 mm	16 x 2 mm	28 x 2 mm
10 x 1,5 mm	18 x 2 mm	30 x 3 mm
12 x 1,5 mm	20 x 2 mm	35 x 3 mm
12 x 2 mm	22 x 2 mm	42 x 3 mm



45H8 x 55 mm	200H8x230mm
65 H8x 80 mm	220H8x245mm
63H8x 75 mm	220H8x270mm
H8x/3mm	250H8x280mm
63H8x78mm	250H8x300mm
80H8x92mm	320H8x377mm
85H8x100mm	

## HARD CHROMIUM PLATED BAR

### MAIN MATERIALS

#### Standard Production:

Ck 45

#### By Request:

20 Mn V6 , Cf 53, 42Cr Mo 4, 100Cr6

#### Also Available by Request:

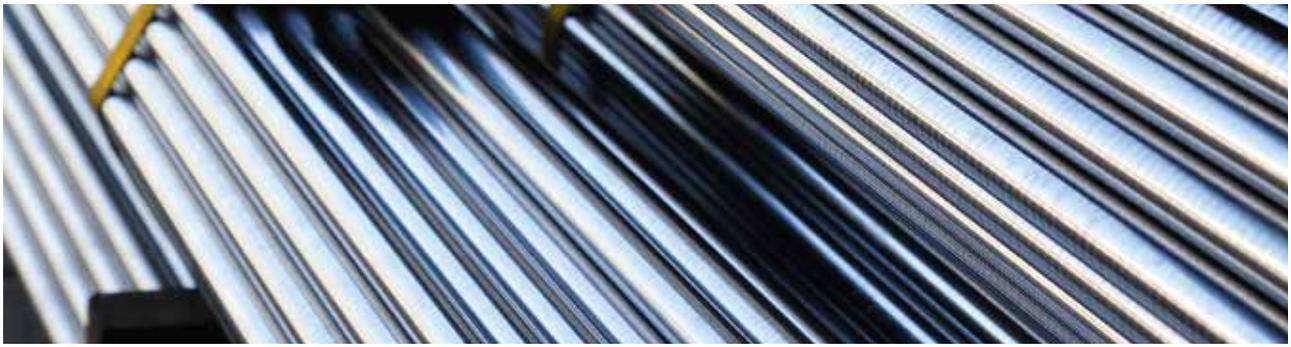
AISI 420 , AISI 431, AISI 305 ,AISI 316 (Stainless steel)

Hard Chromium Plated Bars diameter range 6 mm to 350 mm,

**Diameter Tolerance:** ISO f7 ovality ISO f7/3

**Standard Production Range:** 6 mm – 127 mm

**Production range by request:** 130mm to 350 mm



*Standard production includes imperial and metrics sizes.*

METRIC Sizes as Follow :			IMPERIAL Sizes as Follow:	
6 mm	30 mm	65 mm	¼ (6,35 mm)	2 inç (50,80 mm)
8 mm	32 mm	70 mm	⅜ (9,525mm)	2 ¼ ( 57,15mm)
10 mm	35 mm	75 mm	½ (12,7mm)	2 ½ ( 63,5mm)
12 mm	36 mm	80 mm	⅝ (15,875mm)	2 ¾(69,85mm)
14 mm	38 mm	85 mm	¾ (19,05mm)	3 inç(76,2mm)
15 mm	40 mm	90 mm	1 inç (25,4mm)	3 ¼ ( 82,5 mm)
16 mm	42 mm	95 mm	1 ¼ (31,75mm)	3 ½ ( 88,9mm)
18 mm	45 mm	100 mm	1 ⅜(34,925mm)	3 ¾ (95,25mm)
19 mm	48 mm	105 mm	1 ½(38,1mm)	4 inç ( 101.6 mm)
20 mm	50 mm	110 mm	1 ⅝(41,275mm)	4 ½ ( 114,3mm)
22 mm	55 mm	115 mm	1 ¾ ( 44,45 mm)	5 inç ( 127 mm)
24 mm	56 mm	120 mm		
25 mm	60 mm	125 mm		
28 mm	63 mm			

## LENGHT OF BARS

**Standard Length :** 5,5 m – 6,5 m

**Max Length By Request :** 17 m

**Straightness :** 0,05/1000

## HARD CHROMIUM PLATING

**Hard chromium Wall Thickness :** Min 20 Micron

**Double Chromium Plating :** Crack Free Layer 10 mic.

Plus 20 mic micro Cracked 1000 Vikers Layer.

**Chromium Thickness Hardness :** 850 Vikers- 1150 Vikers

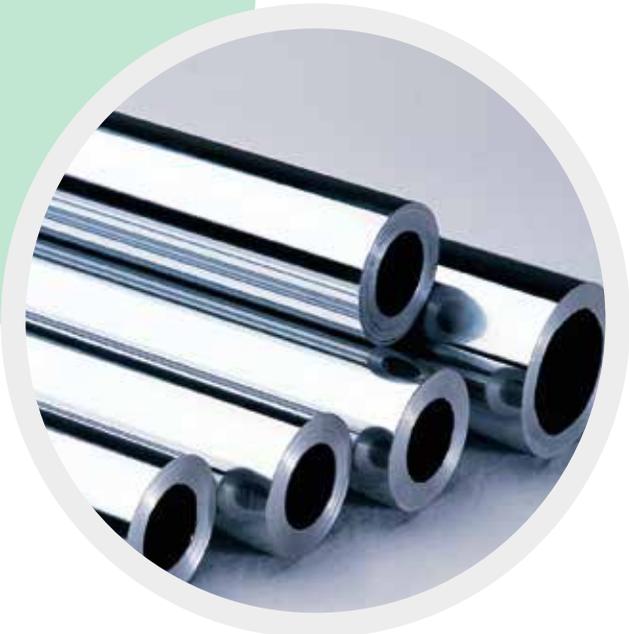
**Roughness :** Ra 0,15 mic – 0,25 mic



## Hard Chromed Rods Out Side Hard Chromium Plated Tubes:

*We have two offers in this field.*

- Cold drawn pipes with smooth inner diameter and hard chromium plated outside diameter.
- Peeled pipes with hard chrome plated outside surface and raw material inner surface.



## INDUCTION HARDENED BARS



### **Induction Hardened Bars:**

*We have two types products*

· Induction hardened bars for hydraulic cylinders:

Main material is CK 45 .

Diameter ranges from 10 mm to 200 mm.

Standard length is 6m.

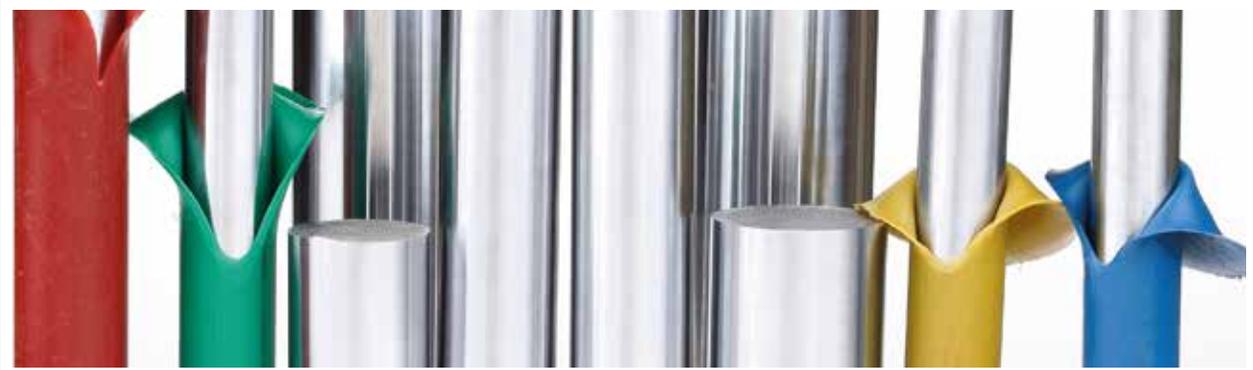
By request bars minimum of 2 meters and maximum of 17 meters can be induction hardened.

· Induction hardened bars for ball bearing .

Main material is Cf53

Dimater ranges from 6mm to 120mm.

Longer bars and larger diameters are available by request.



## PACKAGING

Each bar is either placed in a cardboard tube or covered in a plastic wrapper. Then each bundle is wrapped in rugs and placed within 6 m plastic sacks before delivery.

Thanks to these applications, bars are neither affected by moist nor impacts during the delivery process, no matter how long the process takes. This standard packaging is included in the prices and is not considered as an extra cost for the customers.

Certain customs offices store the goods in extremely harsh conditions. In those cases, we recommend you to ask for extra pine wood boxes with 25 mm thickness. These boxes are not included in list prices and will be charges as extra.

### Shipment:

Shipment is available both for partial loads and full truck/container loads. Also is available exworks, FOB, CIF and DDU.







## **BORUBAR A.Ş.**

Tel: +90 282 746 12 82 Fax: +90 282 746 12 80 Veliköy Organize Sanayi Bölgesi  
3. Cadde No: 6 Posta Kodu: 59500 Veliköy-Çerkezköy/TEKİRDAĞ  
[www.borubar.com.tr](http://www.borubar.com.tr) - [info@borubar.com.tr](mailto:info@borubar.com.tr)