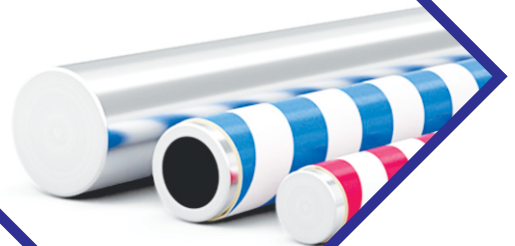
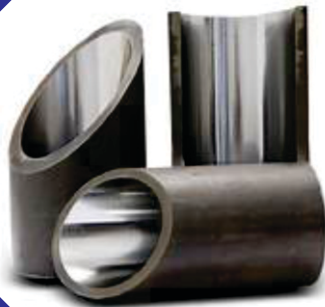
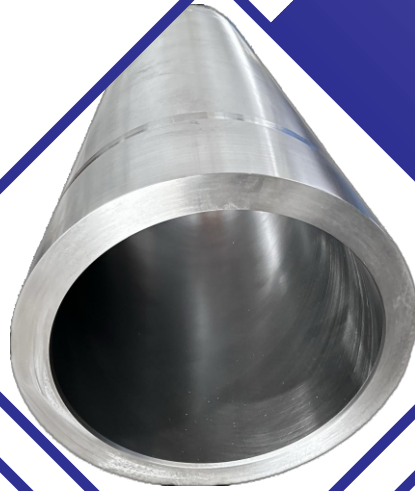
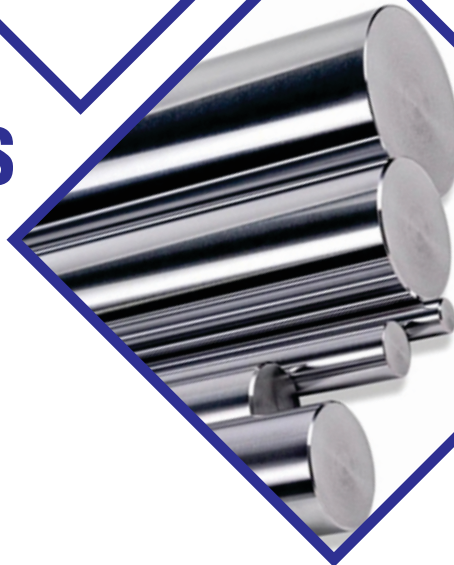




ARISH METAL TUBES



HYDRAULICS TUBES & SHAFTS



- ▲ HONE TUBE
- ▲ READY TO HONE TUBE
- ▲ CUSTOMISED CYLINDER TUBES & SHAFT
- ▲ HARD CHROME PLATED SHAFTS
- ▲ INDUCTION CHROME PLATED SHAFTS



HYDRAULIC CYLINDER BARREL

Honed/SRB Barrel



Size Table

| No | OD | ID | Lenght |
|----|-------|-------|--------|
| | mm | mm | Max. |
| 1 | 50.00 | 40.00 | 3.0 |
| 2 | 55.00 | 40.00 | 3.0 |
| 3 | 60.00 | 50.00 | 3.0 |
| 4 | 60.80 | 50.80 | 3.0 |
| 5 | 63.00 | 50.00 | 3.0 |
| 6 | 63.50 | 50.80 | 3.0 |
| 7 | 65.00 | 50.00 | 3.0 |
| 8 | 70.00 | 50.00 | 3.0 |
| 9 | 73.50 | 63.50 | 4.0 |
| 10 | 75.00 | 60.00 | 4.0 |
| 11 | 76.00 | 63.00 | 4.0 |
| 12 | 78.00 | 65.00 | 4.0 |
| 13 | 83.00 | 63.00 | 4.0 |
| 14 | 83.00 | 70.00 | 4.0 |
| 15 | 86.00 | 70.00 | 4.0 |
| 16 | 86.20 | 76.20 | 4.0 |
| 17 | 88.90 | 76.20 | 4.0 |
| 18 | 93.00 | 80.00 | 5.8 |
| 19 | 95.00 | 80.00 | 5.8 |
| 20 | 98.00 | 88.90 | 5.8 |

| No | OD | ID | Lenght |
|----|--------|--------|--------|
| | mm | mm | Max. |
| 21 | 101.60 | 88.90 | 5.8 |
| 22 | 100.00 | 80.00 | 8.5 |
| 23 | 102.00 | 80.00 | 8.5 |
| 24 | 104.00 | 90.00 | 8.5 |
| 25 | 105.00 | 90.00 | 8.5 |
| 26 | 108.00 | 90.00 | 8.5 |
| 27 | 108.00 | 100.00 | 8.5 |
| 28 | 108.00 | 80.00 | 8.5 |
| 29 | 110.00 | 90.00 | 8.5 |
| 30 | 111.00 | 101.60 | 8.5 |
| 31 | 114.00 | 90.00 | 8.5 |
| 32 | 114.00 | 100.00 | 8.5 |
| 33 | 115.00 | 100.00 | 8.5 |
| 34 | 114.30 | 101.60 | 8.5 |
| 35 | 121.00 | 100.00 | 8.5 |
| 36 | 127.00 | 100.00 | 8.5 |
| 37 | 127.00 | 114.30 | 8.5 |
| 38 | 130.00 | 110.00 | 8.5 |
| 39 | 133.00 | 110.00 | 8.5 |
| 40 | 135.00 | 125.00 | 8.5 |



| No | OD | ID | Lenght |
|----|--------|--------|--------|
| | mm | mm | Max. |
| 41 | 135.00 | 120.00 | 8.5 |
| 42 | 140.00 | 110.00 | 8.5 |
| 43 | 140.00 | 120.00 | 8.5 |
| 44 | 140.00 | 125.00 | 8.5 |
| 45 | 140.00 | 127.00 | 8.5 |
| 46 | 146.00 | 120.00 | 8.5 |
| 47 | 145.00 | 125.00 | 8.5 |
| 48 | 148.00 | 125.00 | 8.5 |
| 49 | 152.00 | 125.00 | 8.5 |
| 50 | 152.00 | 130.00 | 8.5 |
| 51 | 159.00 | 140.00 | 8.5 |
| 52 | 159.00 | 125.00 | 8.5 |
| 53 | 159.00 | 130.00 | 8.5 |
| 54 | 159.00 | 135.00 | 8.5 |
| 55 | 159.00 | 140.00 | 8.5 |
| 56 | 160.00 | 150.00 | 8.5 |
| 57 | 166.00 | 140.00 | 8.5 |
| 58 | 168.00 | 140.00 | 8.5 |
| 59 | 168.00 | 152.40 | 8.5 |
| 60 | 170.00 | 150.00 | 8.5 |

| No | OD | ID | Lenght |
|----|--------|--------|--------|
| | mm | mm | Max. |
| 61 | 170.00 | 150.00 | 8.5 |
| 62 | 172.00 | 160.00 | 8.5 |
| 63 | 184.00 | 160.00 | 8.5 |
| 64 | 186.00 | 160.00 | 8.5 |
| 65 | 188.00 | 160.00 | 8.5 |
| 66 | 190.00 | 150.00 | 8.5 |
| 67 | 194.00 | 160.00 | 8.5 |
| 68 | 194.00 | 175.00 | 8.5 |
| 69 | 194.00 | 180.00 | 8.5 |
| 70 | 203.00 | 180.00 | 8.5 |
| 71 | 210.00 | 180.00 | 8.5 |
| 72 | 214.00 | 180.00 | 8.5 |
| 73 | 214.00 | 200.00 | 8.5 |
| 74 | 230.00 | 200.00 | 8.5 |
| 75 | 219.00 | 180.00 | 8.5 |
| 76 | 245.00 | 220.00 | 8.5 |
| 77 | 245.00 | 220.00 | 8.5 |
| 78 | 273.00 | 220.00 | 8.5 |
| 79 | 273.00 | 250.00 | 8.5 |
| 80 | 299.00 | 250.00 | 8.5 |

SRB tooling ID : 56mm, 63mm, 70mm, 80mm, 90mm, 100mm, 110mm, 115mm, 120mm, 125mm, 130mm, 136mm, 140mm, 150mm, 160mm, 165mm, 180mm, 190mm, 200mm, 220mm, Honing lenght max. 12m.

Chemical Composition

| Steel Grade | C | Si | Mn | P | S | Cu | Ni | Cr | V | Al |
|-------------|-----------|-----------|-----------|--------|--------|-------|-------|-------|-------|--------|
| 20 | 0.17-0.23 | 0.17-0.37 | 0.35-0.65 | ≤0.035 | ≤0.035 | <0.25 | <0.30 | <0.25 | / | / |
| 45 | 0.42-0.50 | 0.17-0.37 | 0.50-0.80 | ≤0.035 | ≤0.035 | <0.25 | <0.30 | <0.25 | / | / |
| Q345B | ≤0.20 | ≤0.50 | ≤1.70 | ≤0.035 | ≤0.035 | ≤0.30 | ≤0.50 | ≤0.30 | ≤0.15 | / |
| Q345D | ≤0.18 | ≤0.50 | ≤1.70 | ≤0.030 | ≤0.025 | <0.30 | <0.50 | <0.30 | ≤0.15 | ≥0.015 |
| 275SiMn | 0.24-0.32 | 1.10-1.40 | 1.10-1.40 | ≤0.035 | ≤0.035 | <0.30 | <0.30 | <0.20 | / | / |
| 25Mn | 0.22-0.29 | 0.17-0.37 | 0.70-1.00 | ≤0.035 | ≤0.035 | <0.25 | <0.30 | <0.25 | / | / |
| E355 | ≤0.22 | ≤0.55 | ≤1.60 | ≤0.025 | ≤0.025 | / | / | / | / | ≥0.02 |

Mechanical Property

| | Steel Grade | Final Supply condition | Cold finished (BK) | | Cold drawn +stress-release(BKS) | | | Hardness HB | Impact Value (-20°C)J |
|---------------------|-------------|------------------------|--------------------|-----|---------------------------------|------|-----|-------------|-----------------------|
| | | | T.S | EL% | T.S | Y.S | EL% | | |
| Chinese Grade | 20 | | ≥550 | ≥8 | ≥520 | ≥400 | ≥15 | 170 | / |
| | 45 | | ≥680 | ≥5 | ≥630 | ≥520 | ≥12 | 190 | / |
| | Q345B | | ≥660 | ≥8 | ≥620 | ≥520 | ≥15 | 190 | / |
| | Q345D | | ≥660 | ≥8 | ≥620 | ≥520 | ≥15 | 190 | ≥27 |
| | 25Mn | | ≥640 | ≥8 | ≥620 | ≥510 | ≥15 | 190 | / |
| | 27SiMn | | ≥780 | ≥5 | ≥700 | ≥580 | ≥10 | 220 | / |
| International Grade | E355 | | ≥700 | ≥8 | ≥580 | ≥500 | ≥14 | 195 | / |
| | 1026 | | ≥640 | ≥8 | ≥620 | ≥510 | ≥15 | 190 | / |
| | ST52 | | ≥700 | ≥8 | ≥620 | ≥540 | ≥15 | 195 | / |

ST52.E355 impact value only in request.

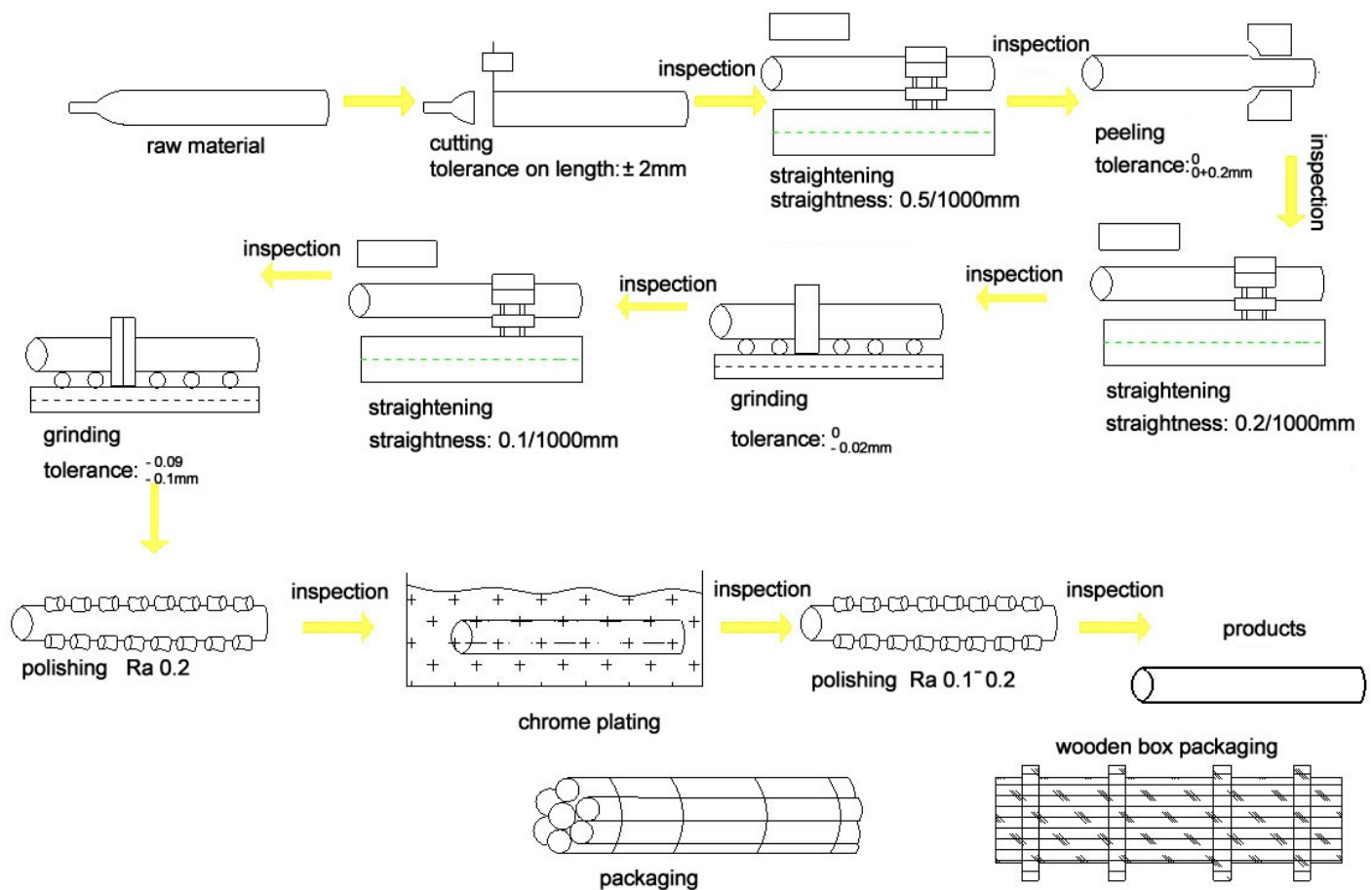
Tolerance on ID(μm)

| ID (mm) | Tolerance on(μm) | | | |
|----------|------------------|----------|-----------|-----------|
| | H7 | H8 | H9 | H10 |
| 30 | +21 0 | +33 0 | +52 0 | +84 0 |
| >30-50 | +25 0 | +39 0 | +62 0 | +100 0 |
| >50-80 | +30 0 | +46 0 | +74 0 | +120 0 |
| >80-120 | +35 0 | +54 0 | +87 0 | +140 0 |
| >120-180 | +40 0 | +63 0 | +100 0 | +160 0 |
| >180-250 | +46 0 | +72 0 | +115 0 | +185 0 |
| >250-315 | +52 0 | +81 0 | +140 0 | +210 0 |
| >315-400 | +57 0 | +89 0 | +170 0 | +230 0 |

HARD CHROME PLATED BAR / INDUCTION CHROME PLATED BAR

| | |
|-----------------------------|--|
| Material | Ck45; 20MnV6; 38MnVS6; 42CrMo4; 40Cr; ST52; HY4520 |
| Supply Condition | Ground and chrome plated |
| Chrome Thickness | 20 to 30 micron |
| Surface Roughness | Ra≤0.2 micron and Rt≤2 micro |
| Tolerances On Dia | ISO f7 on the diameter |
| Ovality | Half of the tolerance ISO f7 |
| Straightness | ≤ 0.2mm/m |
| Surface Hardness | Min 900 HV (Vickers 100g) |
| Induction Hardness | Depth 1.2 to 2mm and hardness HRC52~58 |
| Cohesion | No cracks, breaking or detaching after thermic shock (warming up at 300 celsius degrees and cooling in water) |
| Porosity | Test according to ISO 1456/1458 and result valuation according to ISO 4540 rating 8-10 |
| Corrosion Resistance | Test in natural salt spray according to ASTM B 117-120 hours Results evaluation according to ISO 4540 RATING 7-10 |
| Weldability | Good |
| Packing | Anti rust oil to be applied on material and each rod to be packed in paper sleeve. |
| Certificate | As per EN10204 3.1 with chrome thickness and salt spray test report. |

piston rod production process



Chemical Composition

| Material | C% | Mn% | Si% | S% | P% | V% | Ni | Cr% | Mo | Cu |
|----------|-----------|-----------|-----------|--------|--------|-----------|-------|----------|-----------|-------|
| Ck45 | 0.42-0.50 | 0.50-0.80 | 0.17-0.37 | ≤0.035 | ≤0.035 | | ≤0.25 | ≤0.25 | | ≤0.25 |
| ST52 | ≤0.22 | ≤1.6 | ≤0.55 | ≤0.04 | ≤0.04 | 0.02-0.15 | | | | |
| 20MnV6 | 0.17-0.24 | 1.30-1.70 | 0.10-0.50 | ≤0.035 | ≤0.035 | 0.10-0.20 | ≤0.30 | ≤0.30 | | ≤0.30 |
| 42CrMo | 0.38-0.45 | 0.5-0.8 | 0.17-0.37 | ≤0.035 | ≤0.035 | 0.07-0.12 | ≤0.03 | 90.1.20 | 0.15-0.25 | ≤0.03 |
| 40Cr | 0.37-0.45 | 0.50-0.80 | 0.17.0.37 | ≤0.035 | ≤0.035 | | ≤0.3 | 0.80-1.1 | | ≤0.03 |
| Hy4520 | 0.40-0.48 | 0.80-1.40 | 0.15-0.35 | ≤0.035 | ≤0.035 | ≤0.15 | ≤0.25 | ≤0.25 | ≤0.15 | ≤0.25 |

Mechanical Property

| Material | N/mm ² T.S | N/mm ² Y.S | E%(min) | Charpy | Condition |
|----------|-----------------------|-----------------------|---------|--------|------------|
| Ck45 | 610 | 355 | 15 | >41J | Normalized |
| Ck45 | 800 | 540 | 20 | >41J | Q + T |
| ST52 | 500 | 355 | 22 | | Normalized |
| 20MnV6 | 750 | 590 | 12 | >40J | Normalized |
| 42CrMo4 | 980 | 850 | 14 | >47J | Q + T |
| 40Cr | 1000 | 800 | 10 | | Q + T |

Micro Alloy Steel

| Material | Mechanical Property | | | | | (HBW) | |
|----------|---------------------|-----------|------|-----|---------|-------|---------|
| | RM (MPa) | Rel (MPa) | A% | Z% | KUS (J) | | |
| HY4520 | Ø40-Ø100 | 750-900 | ≤520 | ≤19 | ≤40 | ≤39 | 230-290 |
| | >Ø100-Ø140 | 750-900 | ≤520 | ≤17 | ≤35 | ≤39 | 230-290 |

Hollow Bar

A comparison of tubular piston rods versus solid piston rods of the same diameter based on identical compressive, bending and torsional stresses show that the annular cross section permits appreciable weight saving. By cold drawing, the Barrel piston rods has the decisive advantage of more higher mechanical properties than the hot finished piston rods.

CUSTOMISED CYLINDER TUBES & SHAFT



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Our other sister company which Established in 2003 as **Ambica Honing & Hydraulics...** are Well organised set up for Cylinder tube Honing Job Work with **QUALITY** Is the main essence of our company in Market... We have Fully automatic honing Both Horizontal & Vertical to meet precise & consistent quality product from Decade...



OUR HONING & BORING CAPACITY

MINIMUM ID 25 MM. TO MAXIMUM ID 1200 MM. LENGTH 3500 MM

MINIMUM ID 70 MM. TO MAXIMUM ID 550 MM. LENGTH 15000 MM



PRECISION PIPES (ERW, CDW & CDS)



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Plot No - 229, Pushpam Estate,
Neeka Tube Compound, G.I.D.C. Phase I,
Ahmedabad-382445 Gujarat (INDIA)

Warehouse - 2 :

Vill. Sohna Dhani,
Nr. G.D. Goenka School, Sohna Road,
Gurgaon-122103 Haryana. (INDIA)

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