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## Technical data for standard hydraulic cylinders

### **CHARACTERISTICS**

- Maximum working pressure: 200 bar
- Maximum testing pressure: 300 bar
- Maximum working speed: 0.5 m/s
- Working temperature: -30 °C to +90 °C.
- Oil: mineral hydraulic.

### **MATERIALS**

- Rod: chrome plated steel F-1140, minimum chrome layer thickness 20 micron, roughness  $R_a < 0,2$ , minimum surface hardness 900 HV, corrosion resistance minimum 200 hours in neutral saline fog according to ISO9227 rating 9.
- Tube: steel ST-52-3, DIN 2393, inside diameter tolerance ISO H9, roughness  $R_a < 0,8$  micron.
- Guide-bushing: steel F-1140 nitrited (nitride hardening)
- Piston: steel F-1140.

### **SEALS**

- Guide-bushing:
  - Dynamic: compact polyurethane rod-seal, double lip. NBR metal wiper seal.
  - Static: NBR 90 shore o-ring.
- Piston:
  - Dynamic: compact double-acting polyurethane seal, plus nitrile o-ring as activator. Special polyacetal guides reinforced with glass fiber.
  - Static: polyamide locking sealing guide.

### **FINISHING:**

- Black prime painting.

### **RECOMMENDATIONS**

- Protect the cylinder circuit with a relief valve set at 200 bar.
- Check the oil cleanness (pollution), and prevent it from having strange objects (place a filter on the cylinder circuit).

- Bleed the circuit by slightly loosening the cylinder fittings before starting-up.
  - Do not weld on the cylinder tube.
  - Before welding on the rod or on the bottom, please dismount the cylinder.
  - In case you need to store the cylinders for a long period of time, please avoid outdoor storage. If not possible, the rod must be completely retracted or it must be greased instead.
  - For high-pressure cleaning or blasting on the cylinder, the rod and the oil-ports must be suitably protected.
  - For double-acting cylinders working as single-acting, we recommend to connect the non-used oil-port to tank.
  - In case you need to dismount the cylinder, please note that the piston is screwed onto the rod end and fixed with industrial glue, so you must use also industrial glue when mounting again.
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