



TK Trump50-G4020 - 3 Axis

Dewey Glass Processing | Eagle Machines Aluminium Processing | Waterjet SA



NATIONAL GLASS
DISTRIBUTION

Section A: CNC Cutting Platform

| | | |
|--------------------------------------|--|---------------------------------------|
| Work Area (X, Y) | X = Gantry beam | Y = Baseframe |
| | Max travel X Axis | 4050mm |
| | Max travel Y Axis | 2050mm |
| | Max travel Z Axis | 180mm |
| | Max travel A Axis | N/A |
| | Max travel C Axis | N/A |
| | Available cut area | 4000 x 2000 x 200mm |
| Motion Speed on Axis | Max speed in X&Y Axis | 20m/min |
| | Max speed in Z Axis | 2.5m/min |
| | Max speed in A Axis | N/A |
| | Max speed in C Axis | N/A |
| Tolerance | Squareness (100x100mm) | $\leq \pm 0.03\text{mm}$ |
| | Roundness (diameter 100mm) | $\leq \pm 0.04\text{mm}$ |
| | Perpendicular (vertical cut) | N/A |
| | Precision in X Axis | $\leq \pm 0.05\text{mm}/300\text{mm}$ |
| | Precision in Y Axis | $\leq \pm 0.05\text{mm}/300\text{mm}$ |
| | Tolerance in A, B Axis | N/A |
| | Re-position tolerance | $\leq \pm 0.02\text{mm}$ |
| Water-Dust Proof System | All stainless steel covered | |
| | All operative parts are protected by water-dust proof device | |
| Grids Under Grates | For small parts collection after cut (Optional) | |
| Auto-Lubrication | Auto-lubricate feeding to ball screws, guides and all operative articulations, to keep long life performance | |
| CNC Garnet Feeder | Accurate volume control garnet feeder (controlled by CNC controller) to feed the garnet averagely and accurately | |
| | | |
| Linear Guide & Ball Screw | Servo System: Naiky BUS-TCP | |
| | Linear Guide: HIWIN brand, from Taiwan | |
| | Ball-Screw: ABBA brand, from Taiwan | |
| Control Keyboard | Wireless remote control keyboard with silicone protection | |
| Pressure Piping | 10m high pressure tubing | |
| Ruby/Diamond Cutting Head | Cutting head available for abrasive/pure water cut | |

Section B: CNC Driver System

| | | |
|------------------------------------|---|--------------------------------|
| CNC Waterjet Control System | Dynamic speed control | Auto speed up/down |
| | Z Control | (1) Auto height tracker |
| | | (2) By input thickness |
| | | (3) Move & set zero |
| | Piercing | (1) Higher level pierce |
| | | (2) Multiple types of piercing |
| | | (3) Pierce by low pressure, |
| | | cut by high pressure |
| | Built-in CAD/CAM | Easily edit drawings |
| | Over range protection | Hard limit switch protection |
| | Break point resume | Auto resume from break point |
| | Power-break resume | Resume after power break |
| | Numeric abrasive doser | Feeding abrasive accurately |
| | Cutting time estimate | Simulate time of program |
| | Wearing timer | Automatic counting |
| | Multi origins | Set multi origins |
| | Rotatable origin | Set angle of rotation |
| Install on other computer | Simulate system software | |
| Self trouble shooting | Issue/solution diagnosed | |
| System restore | Reinstall backup file | |
| Free online updates | Remote update via internet | |
| Alarm info display | From high pressure pump | |
| Internet access | Port ready for internet | |
| Software/Based on | NC-Studio Waterjet cutting expert (Windows) | |
| Computer Configuration | ISA computer, USB, Ethernet port, Pentium CPU | |
| Matched file format | dxf. , nc. , cnc. , pit. , standard G-code file | |
| Matched H.P Pump System | TK-Trump | |

Section C: High Pressure System

| | | |
|---------------------------------|---|-----------------------------|
| Intensifier | ERTI brand, hydraulic drive intensifier | |
| Attenuator | 1.30L maintenance free attenuator | |
| Oil Pump | Rexroth oil pump with circulation gear oil pump | |
| Main Motor | Siemens 37kw 4 poles motor/Siemens tri-starter circuit | |
| Control System | Omron PLC control with touch screen display | |
| Pressure Control System | Dual pressure control high-low pressure | |
| Pressure Mode | Dual pressure modes available | |
| Electrical Component | Power motor 37kW (50hp) | Siemens oil pump motor |
| | Soft starter | Siemens Star-delta starter |
| | H.P control system/language | Omron PLC control/English |
| | Max circuit breaker | Schneider 100 A main switch |
| | Thermal overload relay | Schneider |
| | Intermediate relay | Omron |
| Hydraulic Component | Hydraulic pump | Rexroth |
| | Hydraulic reversing valve | Sunny USA |
| | Hydraulic pipes | Dery Germany |
| | Hydraulic filter | Hydraulic Attenuator |
| Noise Level | 75db(A) | |
| Ambient Temperature | 5~40°C | |
| Max Pressure | 415MPa (60 000psi) | |
| Operating Pressure | 380MPa (55 000psi) | |
| Nominal Power | 37kW(50hp) 380V/50Hz 80A | |
| Power Consumption | 23kWh/3800bar with 0.33mm orifice | |
| Max Orifice Size | 0.33mm/0.013" | |
| Max Water Flow Rate | 3.6L/min | |
| Pressure Control System | Auto dual pressure shifting control | |
| Booster Pump | Axial feed water booster | |
| Feed Water Condition | 0.5 micron filtered and resin softened water | |
| Feed Water Attenuator | 2.0L/stabalized feed water pressure | |
| Hydraulic Attenuator | 1.2L/stabalized hydraulic working pressure | |
| Max Pressure Fluctuation | 15MPa(150bar) @ 3800bar with dia 0.33mm orifice | |
| H.P Water Attenuator | 1.30L/4150bar maintenance free attenuator | |
| Outlet H.P Tubing | 3/8" H.P tubing, 1/4" H.P tubing connect H.P and nozzle | |
| Circulate Oil Pump | Axial vane oil pump | |
| Cooling Unit | Built-in oil/fan cooler | |

Section C: High Pressure System

| | | |
|-----------------------|-----------------------------|-----------------------------|
| Display Gauges | Oil-pressure gauge | Digital gauge |
| | Oil-temperature gauge | Digital gauge |
| OMRON PLC | Hydraulic pressure overflow | Oil temperature too high |
| | Over high pressure | Feed water pressure too low |
| | Over stroke rate | Motor overload |
| | Oil level too low | Alarm info transmission |

| Technical data of Hydraulic Oil Pump | | Dia in mm | Dia in inch | Qty Orifices |
|---|--------------------------------|-----------|-------------|--------------|
| Oil Pump brand & model | Rexroth variable flow oil pump | 0.10 | 0.004 | 10 |
| Max Hydraulic Pressure | 180 Bar | 0.15 | 0.006 | 5 |
| Cooling Water Consumption | 8.5L/min @ 24°C Water Temp | 0.20 | 0.008 | 3 |
| Max Flow Rate at 1750rpm | 246L/min | 0.25 | 0.010 | 2 |
| Max Power Consumption | 28kW | 0.30 | 0.012 | 1 |
| Hydraulic Reservoir Capacity | 91L | 0.33 | 0.013 | 1 |
| Min Cooling Water Pressure | 2.4 Bar | 0.35 | 0.014 | 1 |

Section D: Parts provided with the machine (per set) free:

| No. | Item | Unit | Qty |
|-----|---|------|-----|
| 1 | Blue grease | pcs | 1 |
| 2 | Check valve repair kit (from US) | set | 1 |
| 3 | Water filter in advance (5um, 1um) | set | 2 |
| 4 | Nozzle (from USA) | pcs | 1 |
| 5 | Ruby Orifice (from US) | pcs | 1 |
| 6 | Bended H.P tube on cutting head | set | 1 |
| 7 | Special seals for hydraulic piping connectors | set | 1 |
| 8 | Nozzle guard cap | prcs | 2 |
| 9 | 80 Mesh garnet for test run | prcs | 5 |
| 10 | M8x6 nylon pipe for garnet feeding | pcs | 2 |
| 11 | 40 Mesh screen (net) for clean the garnet | pcs | 1 |
| 12 | Repair tools for high-pressure intensifier & attenuator | set | 1 |
| 13 | Repair tools for other accessories | set | 1 |
| 14 | Operation manual | set | 1 |
| 15 | Main part manual | set | 1 |
| 16 | Diagram for the whole machine | set | 1 |
| 17 | Instruction VCD for disassemble, repair, build up intensifier | pcs | 1 |
| 18 | Backup CD for system software, operation manual | pcs | 1 |

Section E: Packaging Information

| | | |
|----------|---|-------------------------------|
| A | Request for container | 40 Feet container is required |
| B | Packing size of cutting platform | 5000 x 2800 x 2000mm |
| C | Packing size of controller | 700 x 680 x 1400mm |
| D | Packing size of H.P pump | 2100 x 1200 x 1600mm |
| E | Weight of the machine | 6500kg |

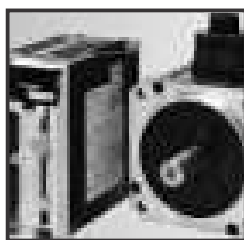
Section F: Gallery



CNC Cutting Platform



Smart Ball Screw



Servo Drive System



Linear Guide



Ball Screw



Tolerance



Electronics



Numeric Abrasive Doser



Keyboard & Cover



Cutting Head



CNC Control System



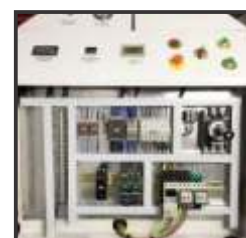
High Pressure Pump System



ERTI 50Hp Intensifier



Siemens Oil Pump



Siemens Starter

Machine Terms & Conditions

1. Delivery

- 2 weeks from receipt of payment for goods in stock.
- 12 weeks from receipt of payment for goods on order.

2. Pricing

- All prices are valid for 30 days from date of quotation.

3. Performance

- Designed to run at the speed specified, but this is dependent on operator efficiency and skill.

4. Taxes

- Value Added Tax is not included in the pricing (VAT exclusive).

5. Payment Terms

- **Full payment with purchase order**
- All machines remain the property of National Glass Distributors (PTY) Ltd until paid for in full.
- All payment notifications must be sent to **debtors@natglass.co.za** together with the quote number.

6. Road Freight and Unloading

- The purchaser is responsible for all aspects of off-loading the machine from the hauler.
- At an additional charge of R350 per hour (subject to change), we will supply personnel to oversee the initial setup of the machine.
- The machine must not be accepted from the hauler with visibly damaged parts as we will not be held responsible for any subsequent repairs.
- Machine settings and regular scheduled maintenance are the responsibility of the purchaser.
- Notwithstanding point above, if we use our own vehicles to deliver the goods to the premises, the customer or its employees shall off-load the goods at the sole risk to the customer who shall be responsible for all damage, loss and expenses howsoever caused during the off-loading process.
- If the customer requires our assistance to off-load the machine, this shall be at the customers sole-risk.
- Furthermore liability for the goods passes to the customer when the machine is physically situated at the mandated delivery address.

7. Warranty

The warranty will be valid for a period of **3 months for electrical parts and 6 months for all mechanical parts from date of delivery** and is subject to the following:

- Electrical power connection is to be done by a qualified electrician, in accordance with SANS 10142.
- On completion of installation, the purchaser is to ensure the Certificate of Compliance is updated and a copy thereof or invoice sent to National Glass Distribution (PTY) Ltd.
- Should any part of the machine malfunction, the purchaser is to notify us immediately. Please email **services@natglass.co.za**
- If the purchaser fails to notify us of the malfunction and additional damage results; then our responsibilities under the warranty will be waived.
- Machine shall only be covered by the warranty if failure is due to defective manufacture present at time of sale which becomes apparent within the relevant warranty period.
- **The warranty is waived in the following cases:**
 - (a) Defects or machine failure caused by uses other than those for which the machine is intended;
 - (b) Defects or machine failure caused by accidental breakage, negligence, abuse or insufficient maintenance
- The warranty does not cover the replacement of consumables i.e. filters, brushes, blades, bearings, pneumatic-oil, etc.

8. Servicing

- It is the responsibility of the purchaser to service the machine. We do not service machines but are able to offer advice on the supply and sourcing of parts.

9. Methods of payment



SnapScan

Scan our unique QR Code to make payments to Natglass.



EFT

Pay directly to our bank acc.
Bank Details: Standard Bank
Branch: 050017, Acc: 080039243



Credit Card

Pay telephonically by credit card.

