



TK Trump50-G4020 - 5 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	220mm
	Max travel A Axis	±45° (extendable up to 90°)
	Max travel C Axis	Infinite (no limitation)
	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	180°/sec
	Max speed in C Axis	180°/sec
Tolerance	Squareness (100x100mm)	≤±0.03mm
	Roundness (diameter 100mm)	≤±0.04mm
	Perpendicular (vertical cut)	≤±0.03mm
	Precision in X Axis	≤±0.05mm/300mm
	Precision in Y Axis	≤±0.05mm/300mm
	Tolerance in A, B Axis	≤1.5 arc/min
	Re-position tolerance	≤±0.02mm
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

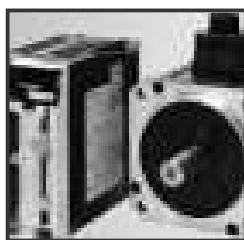
Section F: Gallery



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



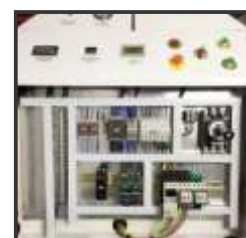
High Pressure Pump System



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.

