



DKSH TECHNOLOGY, 285 Cach Mang Thang Tam, ward 12, district 10, HCMC, Vietnam

DKSH TECHNOLOGY

HCMC, VIETNAM

Quotation	
Quotation:	210701/July 01 st 2021
Request Number:	
Request Date:	
Contact Person:	Ms. Hoa Thi Huynh Nguyen
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Universal package

CNC Universal Cylindrical Grinding Machine ecoGrinder

Year of manufacturing: 2018

Description	Total Amount CHF
Machine	87,000.00
Accessories included	-
Packing included	-
Installation and training by DKSH Service included	<u>-</u>
Total Amount (excl. Taxes)	87,000.00





Quotation 210701/July 01st 2021

DKSH TECHNOLOGY

Product: ecoGrinder Serial: 1042-0502

CNC Universal Cylindrical Grinding Machine ecoGrinder

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Quotation 210701/July 01st 2021 DKSH TECHNOLOGY

Product: ecoGrinder Serial: 1042-0502

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MatNo. Description	Price	Quant.
ecoGrinder Non CE compliant (CE = European Conformity)		
Basic machine		
Basic equipment		1
A2400635-B Center distance 650mm (25.591") Released for series: 1		1
A2400776-B Center height 175mm (6.890")		1
A2901603-B Machine base of Granitan S103 incl. vibration reducing mounting pads.		1
A2901607-B and air cushion for swiveling (incl. support for radial dial indicator)		1
A2400657-VG Mechanical graduation metric		1
60003110-B Wheelhead axis X (NC-axis) 0 deg. Travel 285mm / 11.22".		1
60003111-B recirculating ball screw. Travel 800mm (31.496").		1
A2723657-V Direct measuring system for X-axis resolution 0.0001mm / 0.000,004" (linear, absolute measuring system, does not require reference point approaching)		1

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MatNo.	Description	Price	Quant.
resolution absolute	easuring system of Z-axis n 0.0001mm / 0.000,004" (linear, measuring system, does not require e point approaching)		1
A1397052-S Glass sc	ale interface for direct measuring systems		1
Wheelhea	d H1		
A2912730-B Wheelhe			1
Indication	ad swivel axis manual (B-axis), for swiveling of the wheelhed of the swiveling position through scale ring with on 2.5deg. (without electric position monitoring)	ead.	1
	ration 2.5 deg. for wheelhead swivel axis. g angle -15 deg. to +195 deg.		1
for extern	Guard in tool position T2 right dia.500mm / 20" nal grinding wheels dia.500x63mm / 20x2.5" form1 3.15" form5)		1
The grindin	ote for wheel guard in tool position T2: g length of the right grinding wheel is reduced by 50mm (1.969") lhead swiveling position 30 deg.		
in tool po incl. anci spindles Note: inclus	grinding attachment for belt drive spindles dia.100mm / 3.94 sition T3 llary equipment for connection of internal grinding belt drive dia.100mm / 3.94" from the Studer assortment of accessor sive manual sliding contact guard)	1
to the exte	ote on the assignment of the wheel guards rnal grinding spindles: uard right in tool position T2 for spindle 1		
	grinding spindle 1, roller bearing for belt drive. 10. Nominal diameter 63mm / 2.48"		1
	W / 12.24hp (belt drive with constant revolution) nal grinding spindle 1		1

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MatNo. Description	Price Quant.
A2912828-B Drive motor for external grinding spindle 1 has internal cooling	1
A2227773-B Peripheral speed for external grinding spindle 1: dia. 500mm / 44m/s (19.685" / 8'661sfpm) dia. 400mm / 35m/s (15.748" / 6'890sfpm) dia. 300mm / 26m/s (11.811" / 5'118sfpm) (constant rpm of the grinding spindle)	1
60006339-E Drive motor 3kW / 4.08hp with pulley dia.105mm (4.134") incl. frequency converter for belt-driven internal grinding spindles in tool positions T3, constant speed incl. Number of revolutions monitoring of the max. Engine speed	1
General note regarding drive motor with frequency converter for belt-driven internal grinding spindles: Only internal grinding spindles with belt drives from the accessories range for the corresponding machine type may be used, suitable for the pulley diameter of the drive motor	
A2421709-E Oil mist lubricating unit for belt-driven internal grinding spindles in tool holding fixture position T3, incl. oil level and pressure surveillance	1
Workhead	
A2909755-B Universal workhead MT5, roller bearings, spindle nose with internal holding fixture MT5, spindle bore dia.30mm (1.181"). Manual spindle blocking without monitoring. Indirect driving of the workhead spindle (C axis) by means of toot	1 hed belt
General note for workhead: With interface G01 for dressing tool holder	
General note on workheads with fitting taper MT3, MT4 or MT5: Incl. 1 workpiece driver (pin dia.8mm (0.315"))	
A2909617-B Manual correction of cylindricity for workhead	1
A2909607-B Roundness accuracy when live spindle grinding 0.0004mm (0.000)	1 00157")

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MatNo.	Description	Price	Quant.
and circu reference for workh	c axis for cylindrical grinding mferentially positioned supports, accuracy +/-0.5deg. lead spindle stock with indirect drive or series: 1 - 116		1
60017390-B Workhea	d spindle without holding brake		1
No eccer could mo	ote on workhead spindle holding brake: utric chucks, drivers and/or workpieces whose dead weight we the spindle out of its position when the machine ad off may be used without a workhead spindle holding brake.		
A2939690-B Workpied	ce drive 1.8kW / 2.45hp with AC servo motor		1
•	ge 1-1500rpm, Inching speed 1-50rpm fixed centers max. 1000rpm. allowed		1
A2909795-B Air cushi	on for easy workhead movement during set up.		1
	ent on live spindle grinding with: workhead MT5 max. 70Nm (51.66ftlbs)		
	weight between the centers: er distance 650mm (25.591") max. 80kg (176lb)		
A1809715-M Manual c	l Iraw-bar for locking of live clamping device and collets W25		1
Tailstock			
stroke. B Mechanio	G with fitting taper MT4 and 35mm / 1.38" arrel dia. 50mm / 1.97" with plain bearing. cally adjustable barrel travel control. Mounting sing tool holder adjustable in height possible		1
	ailstock fine adjustment for cylindricity corrections m (0.001575") (in diameter)		1
A2910611-B Air cushi	on for easy tailstock movement during set up.		1

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MatNo.	Description	Price	Quant.
Dressing			
movable in Released for Note: Can be a sternal of the control of t	device with interface G01 attachable to the workpiece table in direction X, for dressing tool holder provided as accessor or series: 52 be set up for: grinding wheels rinding wheels with infeed direction forward (direction -X) rinding wheels with infeed direction backward (direction +X)		1 Pc
Control sy	ystems		
A2902611-B Operating	g panel and electrical cabinet permanently fixed to the mach	nine	1
A2902644-B Air condit	ioning for control cabinet		1
A2400826-B AC voltag	ge 400 Volt +/-10%		1
A2400828-V Mains fre	quency 50Hz +/-1Hz		1
A2400653-B Mains 4-v	vire (L1, L2, L3 / PE) or 5-wire (L1, L2, L3 / N / PE)		1
A1397036-B Control ve	oltage 24 Volt DC		1
Color fl Integra Usable Approx. System (The mo	trol Fanuc 0i-TD with: at monitor 10.4" ted PLC control memory 512kByte, memory for 400 programs . 2kByte of the user memory is required by the Studer Opera Release E and approx. Memory for 15 programs. emory requirements for the Studer sample are approx. 3kBy brox. Memory for 5 programs) for series: 40	-	1
with select and elect acceptan	console for set-up ctor switch for axis- and function key selection (F1 to F8) ronic handwheel, override, ce buttons and emergency stop or series: 40		1

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MatNo.	Description	Price	Quant.
A2217631-B Working	hour meter, range 0-99,999h		1
actuators button fo	eck Safety for Fanuc CNC drives and power lockout for oth after the end of cycle with access light and acknowledge r setting up and starting automatically cycles or series: 40		1
detection	(pluggable) for the connection of an electronic contact from the assortment of accessories. Incl. software for air on on the basis of the contact detection	gap	1
	24V DC (socket) for power supply of the MPM g system from the assortment of accessories		1
(passive between with stan Notes: Studer	on installation for Embedded-Ethernet interface interface) for Fanuc 0i-TD for data exchange the CNC control and an external personal computer dard Ethernet interface COM software for data exchange is available as an accest be used for remote diagnostics	sory	1
Released Software	for series: 40		
Operat one sw and gri Manua Pictogr	perating system Release D for Fanuc 0i-TC consisting of: or-controlled set-up (only ivelling angle per wheel for dressing anding can be set up) I grinding cycle for a workpiece diameter (automatable) amming (programming aid by means of pictograms) ag cycles for		1
- Diame - Shoul - Taper - Free o	the cycles followed by		

-- Workpiece, tool or seat specific correction facility

without additional programming effort (Interact)

-- Autom. dressing incl. free wheel shape (for a max. of 2 dressing tools per wheel)

-- Program copy function

-- Interactive grinding and regrinding of single workpiece batches

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MatNo.	Description	Price	Quant.	Value CHF
(=idle d Diagno	mmable robot cycle sequence cycle for maintenance of thermal machine stability) osis pictures for simplified troubleshooting			
Software op	otions			
system F infeed sp E.g. for to approach or when	Check with Handwheel for Studer operating Release C or higher. Option allows to control seed in an automatic program cycle through the handwheel. esting a new workpiece program when hing the workpiece or the dressing tool approaching a bore or series: 40		1	
(counting 8-digit 8-digit Cycle t	ce counter with display on screen g function via M-command) workpiece counter, resettable workpiece totalizer, non-resettable ime display I for series: 40		1	
A2404800-V Control s	G ystem user interface with metric measurement units		1	
Dialog lang	uage			
A2404666-V Dialog la	nguage English for Studer and Fanuc Operating System		1	
In-proces	s gauging			
Dependir as well as	otes on touch probe: Ing on the touch probe and workpiece geometry Is the machine configuration, it may not be possible to reach Issure all seats with the touch probe			
60007649-E			1	
for probe For exan (TouchPo	eling touch probe 1 (switching) angled to the machining surfactor arm with thread M3 and software for compensation. In the property of the pr	ace		
60007652-E			1	
-	g location H1 touch probe 1 in tool position H1T2 or series: 40			

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MatNo.	Description	Price	Quant.
for touch	m with sphere dia.2mm (0.079"), length 21mm (0.827") probe with M3 thread or series: 40		1 Pc
Hydraulic	s		
filter 10µ with filter toring for common	nydraulics nominal pressure 23bar with m for hydraulics, nominal pressure 0.8bar 6µm and electric filter-pollution, monilubrication of the X- and Z-axis, with tank, oil volume 16 liters, hydraulic unit to the electric cabinet		1
Pneumati	cs		
(filter, wa	ic basic unit with compressed air processing ter separator with automatic drain), electr. ve, circuit pressure surveillance		1
Coolant e	quipment		
A2918679-B Type of 0	Coolant: Emulsion		1
emulsion (r	machine is suitable only for the use of mineral not synthetic). coolants (e.g. grinding oils) cannot be used		
	oressure circuit 0, ressure up to max. 6bar		1
electr. int requires The requ	nterface for connection of a coolant supply system according terface description SDE0096402B. (Power consumption >1 coolant device with own power supply). Ired coolant volume and the mechanical interface are show assignment plan of the machine	0A,	1
is realize	of the grinding drives with internal cooling d by means of process coolant with backflow coolant collector tray of the machine		1
	cycle valve 2 for process cooling on wheel in tool holding fixture position 2		1

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MatNo.	Description	Price	Quant.
	cycle valve 3 for process cooling on wheel in tool holding fixture position 3		1
Enclosure	9		
over long	nclosure (1150mm (45.276") from the ground, 275mm (10.8 gitudinal table) with guard placeable in front of the machine's g area and integrated coolant collector tray over the machine	, S	1
	uard slidable to the grinding room or series: 51		1
Color			
Machir Lower Color c Periph signal v	d machine color ne color upper part inside and outside signal white RAL 900 part of machine iron-gray RAL 7011 of wheel guards / grinding spindle holders signal red RAL 30 peral units and control cabinet inside and outside white RAL 9003		1
Machine o	documents		
A2400798-B Test cert	ificates of machine geometry		2
	test certificate according to EN 60204-1 e conductor continuity test		1
A2900649-V Operatin	g and programming instruction English		1
includes ac	ote on the operating and programming instructions: companying CD with operating and programming in pdf format		
	perator's manual English or series: 1 - 117		1 Pc
	aintenance manual English or series: 1 - 117		1 Pc

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MatNo. Description	Price	Quant.
A2900816-B equipment (English/German) for maintenance. By the majority as a PDF file on CD		1
A2900618-B put in the control cabinet, consisting of: Hydraulic schematics Pneumatic schematics Coolant schematics Log book		1
A2900619-B Software documentation/Data backup		1
Miscellaneous		
A2900613-B Operating tools		1
Warranty		
A9904227-B The warranty period is 12 months		1
Notes to necessary accessories		

Grinding wheels/grinding wheel adaptors.

Extractor tool for dismantling the grinding wheel.

Dressing tool holder and dressing tools.





Accessories

5 medium grinding arbors 45 bolts

Mat.-No. Price **Description** Quant. Tool head / Wheelhead **External grinding** Wheel adaptor, nominal diameter 63mm (2.480") A2432795A-Z 1 Pc Wheel adaptor dia.500mm / 20" with bore 203.2mm / 8". Width 32-63mm / 1.25-2.5" form1 (80mm / 3" form5) for tapered shaft ends 1:10 with nominal diameter 63mm (2.480"). Incl. balancing segments and graduation Grinding wheel changing unit A2237731A-Z 1 Pc Wheel changing shaft (length 220mm (8.661")) for more ergonomic grinding wheel change, for shaft end with nominal diameter 63mm (2.480"), including extractor nut (instead of the extraction tool) Static balancing A2812119-Z 1 Pc Balancing arbor for grinding wheels with nominal dia.63mm (2.480"), length 310mm (11.220"), for balancing equipment dia.400mm (15.748") or dia.600mm (23.622") Internal grinding 30005687-Z 1 Pc Adhesive for mounting of internal grinding wheels on threaded bolts Araldite Rapid 2-component adhesive (double-syringe with 12ml each) Note: No longer usable for new quotes, was replaced by selling no A5600032A Internal grinding spindles with belt drive General note on internal grinding spindles with belt drive for drive motor with frequency converter: The specification of the pulley diameter of the drive motor on the internal grinding spindle must coincide with the specification of the drive motor on the wheelhead, according to the sales text in the machine insert A2917640A-Z 1 Pc Internal grinding spindle 40'000rpm. with belt drive for drive motor with pulley dia.105mm / 4.13" with frequency convertor. (for bore dia.13-45mm / .51-1.77"). Spindle type 102540B, dia. 100mm / 3.94" with oil mist lubrication. With tool holding fixture HJND 35. Incl.: 1 driving pulley dia.31mm / 1.22"

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Accessories

Mat.-No. Description Price Quant.

Internal grinding wheels

Wheels for internal grinding quills

General application of abrasives:

11C Silicon Carbides for:

Cast iron / tungsten carbide / glass / plastics / non-ferrous metals / ceramics / stainless, acid and heat resistant steel / hardened steel 63 HRC and higher /nitriding steel.

54A Pure aluminium oxide for:

Non-alloyed, alloyed, unhardened and hardened steel up to 63 HRC (carbon content up to 0.5% / stainless, acid and heat resistant steel / nitriding steel (untreated) / cast steel nodular cast iron / tool steel / hard-chrome plated steel.

93A Ceramic aluminium oxide for:

Difficult-to-grind steel and alloys (tool steel, high speed steel) from soft state to 64 HRC / cast steel / cast iron

A5583077A-Z 1 Set

Wheel dia.20x20x6mm 54A 120 H 15 VPMF604W, cutting speed 50m/s / 9840sfpm. (1 set = 10 pieces) **Note:** Not available. Use 30064619 as an alternative

Alternatives to 3M grinding wheels

30064165-Z 1 Pc

Grinding wheel form 1 dia.500x50x203.2mm / 20x2x8", 89A 80 H8A V217, 50m/s, (9840sfpm)

Workhead

Jaw chuck

Three-jaw manually operated chuck (spiral chuck)

A2909856A-Z 1 Pc

3-jaw manual chuck dia.125mm (4.921") with adaptor for internal holding fixture MT5 Scroll chuck, radial precision centring Clamping range: External dia.3-125mm (0.118"-4.921"), internal dia.34-115mm (1.339"-4.528") Repeating accuracy: approx. 0.02mm (0.0008")

Including:

- -- Hard jaws (1 set for outside chucking and 1 set for inside chucking)
- -- Chuck key/adjusting key
- -- Torsion protection for adaptor

Note: Requires hand chuck key for locking clamping devices

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Accessories

MatNo.	Description	Price	Quant.
Face plate			
Driver			
set consist for workp dia.10mm	Z or dia. 10-50mm (0.394"-1.969"), sting of 1 piece of each iece diameter up to max. n (0.394"), dia.16mm (0.630"), n (0.984)", dia.40mm (1.575"), dia.50mm (1.969")		1 Set
Inserts for c	arrying centres		
	Z tre adaptor for internal holding fixture MT5 actor nut M48x1.5		1 Pc
Centres for	or workhead and tailstock		
Centres for	internal holding fixture MT4		
A2810030A- Full centr	Z e A short dia.35mm (1.378") for internal holding fixture MT4	ļ	1 Pc
A2810182A- Full centr	Z e A long dia.35mm (1.378") for internal holding fixture MT4		1 Pc
Dressing			
Dressing to	ol holder		
_	O tool holder vertically adjustable with interface G01. ting tapers Morse1 shortened for 2 dressing tools		2 Pc
Dressing to	ols		
_	ols with fitting taper MT1 shortened ength 19mm / 0.748")		
length 18	Z iese type DV/10 NX, height 10mm (0.394"), imm (0.709") with fitting taper MT1 shortened g length 19mm (0.748"))		1 Pc
	Z pint diamond 0.1 carat, with fitting taper MT1 shortened g length 19mm (0.748"))		1 Pc

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Quant.

Packing

Mat.-No. Description Price

Packaging in standard box(es) for transport

Packaging description:

Disposable packaging in standard wooden box

(within the box sealed in plastic, suitable for transport by sea),

however, not suitable for outdoor storage

Treated in accordance with ISPM 15 to prevent the import of wood pests.

Incl. provision, preservation and transport securing devices.

Without suspension device

Note: Container loading not possible at our plant.

Boxes have to be picked up by the freight forwarder in a curtain-sider truck and loaded into containers at the port.

A9904801 1 --

Packing S in standard crate

Note: Requires separate seaworthy packing

for tool cabinet and paper band filter

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General conditions

Shipment Conditions / Incoterms:

EXW Bangkok Thailand (Incoterm 2010)

General conditions of Supply

According to SWISSMEM General Conditions of Supply. Other conditions are only binding if confirmed by our written acknowledgement. If other terms and conditions are mentioned in the order, these will not be valid unless expressly acknowledged in writing by us. (Enclosure: General conditions of contract for the supply of plant and machinery of SWISSMEM, edition 2016).

Term of delivery 2-4 weeks

after receipt of written order Subject to prior sale

The manufacturer reserves the right to make technical changes

Retention of title

Studer reserves the right to retain the title to its delivery until payment has been made in full.

Export information

These goods are subject to international export control measures. Fulfillment of the contract is subject to granting of the required export and transition approvals

Environmental influences

The machine must be protected on its site against damaging ambient influences like heat, exposure to sunrays, draft of air, cold, dust and moisture.

Tooling and Equipment

Tools, Tooling and Equipment (e.g. grinding wheels, dressing tools, Emulsion etc) which have not been explicitly ordered with the Machine and are necessary for the operation, must be supplied by the user in due time for the machine installation.

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Regulations / Standards

The machines are built and use equipment, components and methods that meet the generally recognized regulations and standards for the market segment.

Specific works regulations/operation method cannot be considered.

Currency as per quotation

Special terms of payment (negotiable)

50% deposit, 50% by bank transfer before shipment

Our bank details:

Beneficiary Name: DKSH Singapore Pte Ltd

Beneficiary Address: 47 Jalan Buroh #09-01, Singapore 619491

Beneficiary's Bank: DEUTSCHE BANK AG

Account no: 2527844010 Bank code: DEUTSGSGXXX

Branch Name: Main office

Branch code: 001





Legend-Price List code:

B Basic equipment

VG * Version of basic machine

V * Version

S * Special equipment

E Special accessories optional, retrofittable under

certain conditions (Service engineer)

M Special accessories, subsequent supply possible without

any problems

O Accessories (usually) installed

Z Accessories separately

_G Recommended option for basic machine specification _K Studer code for customer specific price list CO items

KA Customer specific items

N Non-function

* cannot be altered, retrofitted after receipt of order

Compliance notice

We would like to point out that our employees are required to strictly comply with all applicable legal regulations and the values and principles of the UNITED GRINDING Group. In particular, our employees may not offer, promise or grant unreasonable advantages or benefits. Details can be found in our Code of Conduct at www.grinding.ch

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