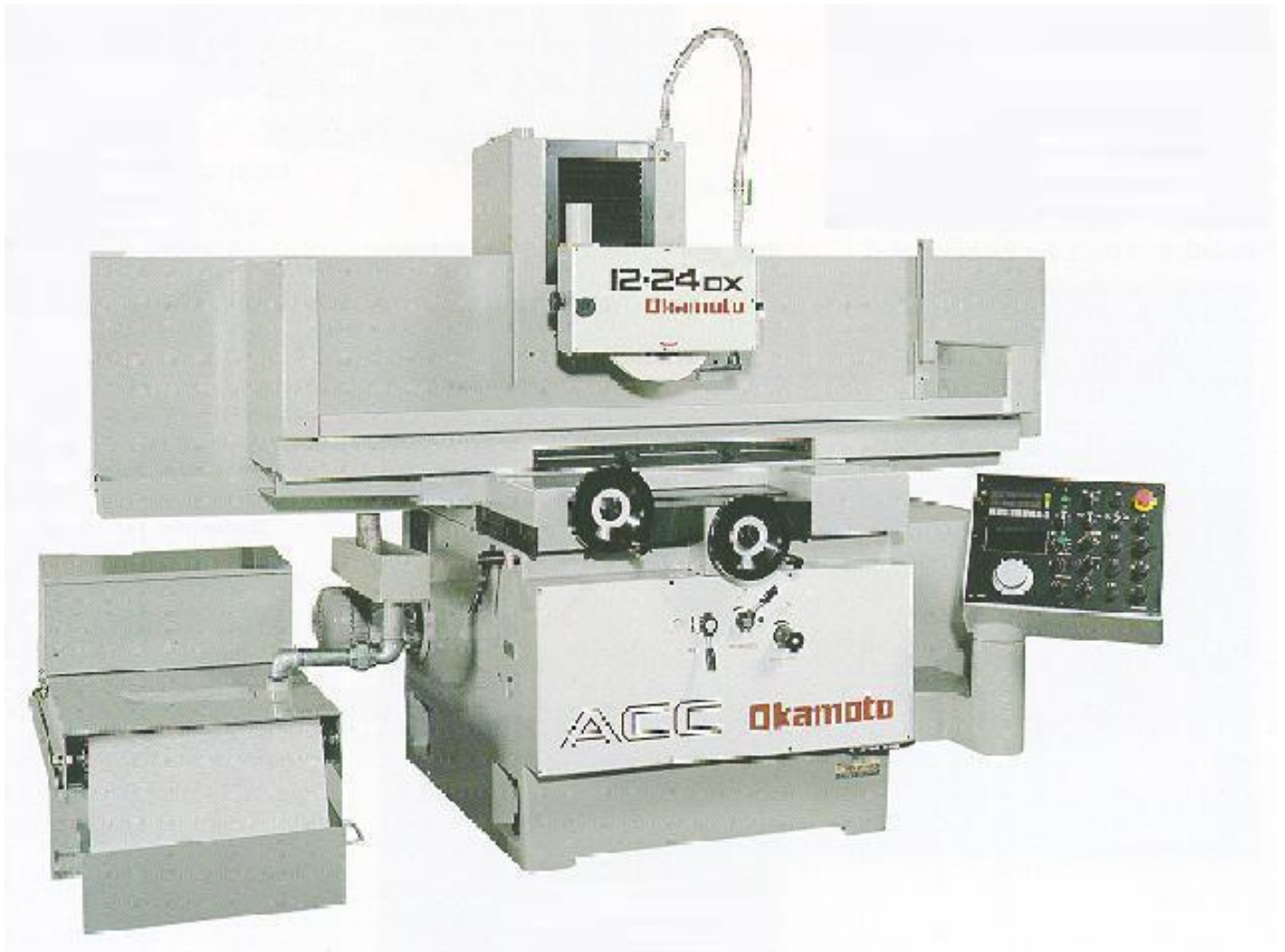


Okamoto
CORPORATION

Pre-Installation Guide



Okamoto
CORPORATION

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Pre-installation Guide

Thank you for purchasing your new Okamoto grinder. This guide will help you prepare for installation.

To save time in the future, print a copy of this document. Choose Print from the File menu, and press Enter to receive all pages of examples and instructions.

To schedule installation for your grinders first complete the Pre-Installation check and then contact Okamoto Corporation when you are ready for installation. Okamoto Corporation should be informed so that you can be added to the schedule.

Information about the grinder's AMP rating, KVA Power, and Oil requirements for all machines is included here. If you need explanation of the service rates and training rates for North America and South America, or Email address it is available at the end of this guide.

Pre-installation Guide for Okamoto Grinders

Congratulations on the purchase of your Okamoto grinder. To ensure the smooth installation of your grinder, we need some assistance from you before the installation begins.

- Remove grinder from skid and set in its final resting place on the pads provided. Avoid straddling cracks or saw cuts in the floor. Rough level machine with a bubble level.
- Fill machine with **Mobil Vacuoline 1405** hydraulic oil. Proper oil specifications extremely important. Do not substitute oil. Follow the attached chart amounts.
- Wipe grease and dirt from table and machine body. It is extremely important that the Cosmoline (grease) is completely cleaned from all moving parts. Remove and discard plastic and paper wrapping from splash guards.
- **Do not install the chuck.** - Remove the chuck from the box and clean the top and bottom with solvent.
- Supply input power line to machine. - **BECAUSE OF INSURANCE RESTRICTIONS, YOU ARE RESPONSIBLE FOR PROVIDING THE WIRING, CONDUIT, PLUGS, FUSES AND DISCONNECTS OR CIRCUIT BREAKERS IN ADDITION TO, ALL CONNECTIONS BETWEEN THE MACHINE AND YOUR POWER SOURCE.**

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PRE-INSTALLATION

- A tag on the main panel states how the machine was wired from the factory, 230V or 460V. **If there is no tag assume 230V.** Then contact Okamoto Corporation. NOTE: “EXB” model grinders have an external transformer (208 secondary) that will need to be wired. If you are unsure of what you have, contact Okamoto Corporation by telephone, fax or email.

WARNING

DO NOT APPLY POWER TO THE MACHINE!

If customer applies power to machine, and damage results, then the customer would be liable for the cost of repairs. If your machine requires compressed air for pneumatic controls or actuators, then you will be responsible for plumbing and connection to the machine before installation.

Have water and water soluble coolant available during installation. Do not fill coolant tank with coolant until the technician asks you to do so.

If you have any questions about this document or any of the requirements for your grinder, you should contact your sales person at your distributor or the Okamoto Service Department at: service@Okamotocorp.com also our web page address is www.okamotocorp.com

Okamoto's technician (or, in some cases, an Okamoto-trained service technician from your distributor) will be responsible for: installing splash guards and/or options, finish leveling machine, changing voltages if necessary, checking operations, training your operators and grinding the top and bottom of chuck. Machine level should be checked weekly until machine settles to the foundation, then monthly after that to insure that the grinder has settled and is still level.

Required Oil

This concerns the question of the proper hydraulic / lubrication of all Okamoto Corporation Saddle type machines.

In an effort to maintain the best operating condition of our saddle machines, Okamoto Japan has under gone exhaustive research into what is the best type of hydraulic / lubrication oil to use. Okamoto has tested numerous hydraulic and lubrication oils with similar specifications and properties and has determined the best oil to use is Mobil Vacuoline 1405.

The oil Mobil Vacuoline 1405 has been found to provide the best overall performance. This is due to the requirement that the oil to be used must provide both hydraulic and lubrication properties.

Therefore, the only oil recommended for Saddle type machines by Okamoto Corporation is Mobil Vacuoline 1405.

Oil should be inspected every 6 months and changed once a year. This could be done more or less depending on the condition of the oil at inspection.



OIL AND POWER REQUIREMENTS

SADDLE TYPE GRINDERS

MODEL	HYDRAULIC & LUBRICATION		POWER		
	CAPACITY	OIL TYPE	KVA	AMPERAGE	
				230 V	460 V
LINEAR 612 LINEAR 612B LINEAR 618 LINEAR 618B	.5 GALLONS	MOBIL VACUOLINE 1405	1.5	6	2
618DX1	5 GALLONS	MOBIL VACUOLINE 1405	4.5	10	5
618DX2			5	15	10
618DX3			4.5	15	10
820ST	21 GALLONS	MOBIL VACUOLINE 1405	4.5	15	10
1224ST	26 GALLONS	MOBIL VACUOLINE 1405	7.5	20	10
1632ST	48 GALLONS	MOBIL VACUOLINE 1405	8	20	10
820DX 820DXII 820DXIII 820DXV	21 GALLONS	MOBIL VACUOLINE 1405	4.5	15	10
1224DX 1224DXII 1224DXIII 1224DXV	32 GALLONS	MOBIL VACUOLINE 1405	7.5	20	10
1624DX 1624DXII 1624DXIII 1624DXV	42 GALLONS	MOBIL VACUOLINE 1405	8	20	10
1632DX 1632DXII 1632DXIII 1632DXV	48 GALLONS	MOBIL VACUOLINE 1405	8	20	10
2024DX 2024DXII 2024DXIII 2024DXV	48 GALLONS	MOBIL VACUOLINE 1405	8	20	10
2036DX 2036DXII 2036DXIII 2036DXV	48 GALLONS	MOBIL VACUOLINE 1405	8	20	10
2040DX 2040DXII 2040DXIII 2040DXV	48 GALLONS	MOBIL VACUOLINE 1405	8	20	10

* The following grinders have machine data that should be backed up at the time of installation. It is the customers' responsibility to backup this data. Procedures that instruct you how this is done is available on our FAQ web page

MDI/CNC SADDLE TYPE GRINDERS

* MODEL	HYDRAULIC & LUBRICATION		POWER		
			KVA	AMPERAGE	
	CAPACITY	OIL TYPE		230 V	460 V
820EX 820EXB	21 GALLONS	MOBIL VACUOLINE 1405	8.5	25	15
1224EX 1224 EXB	32 GALLONS	MOBIL VACUOLINE 1405	12	30	15
1624EX 1624 EXB	43 GALLONS	MOBIL VACUOLINE 1405	12	30	15
1632EX 1632 EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2024EX 2024 EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2036EX 2036 EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2040EX 2040 EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
618DXNC	5 GALLONS	MOBIL VACUOLINE 1405	8	20	10
820DXNC	21 GALLONS	MOBIL VACUOLINE 1405	8	20	10
1224DXNC	32 GALLONS	MOBIL VACUOLINE 1405	10	30	15
1624DXNC	42 GALLONS	MOBIL VACUOLINE 1405	10	30	15
1632DXNC	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2024DXNC	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2036DXNC	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2040DXNC	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
CNC-820DX	10 GALLONS	MOBIL VACUOLINE 1405	20	50	25
CNC-1224DX	22 GALLONS	MOBIL VACUOLINE 1405	15	40	20

INTERNAL GRINDERS

MODEL	HYDRAULIC & LUBRICATION		POWER		
			KVA	AMPERAGE	
	CAPACITY	OIL TYPE		230 V	460 V
IGM-2M	20 GALLONS	MOBIL VACUOLINE 1405	8	20	10
	1 GALLON	MOBIL VELOCITE NO.6			
* IGM-15NC	1 GALLON	MOBIL VELOCITE NO.6	8	20	10
* IGM-15NC/2	1 GALLON	MOBIL DTE 24	12	20	10
	11 GALLONS	MOBIL VELOCITE NO.6			
	6 GALLONS	MOBIL VACUOLINE 1405			

COLUMN TYPE GRINDERS

* MODEL	HYDRAULIC & LUBRICATION		POWER		
			KVA	AMPERAGE	
CAPACITY	OIL TYPE	230 V		460 V	
2440ST	6 GALLONS	MOBIL VACUOLINE 1405	22	60	30
2460ST	6 GALLONS	MOBIL VACUOLINE 1405	22	60	30
2048DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
2060DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
2080DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
20120DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
2448DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
2860DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
3280DX	53 GALLONS	MOBIL VACUOLINE 1405	25	60	30
2048EX	48 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2060EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
2080EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
20120EX	48 GALLONS	MOBIL VACUOLINE 1405	34	80	40
2448EX	48 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2460EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
24120EX	48 GALLONS	MOBIL VACUOLINE 1405	34	80	40
2860EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
2880EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
28120EX	48 GALLONS	MOBIL VACUOLINE 1405	34	80	40
3280EX	48 GALLONS	MOBIL VACUOLINE 1405	33	80	40
32120EX	48 GALLONS	MOBIL VACUOLINE 1405	34	80	40
2448EC	3 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2860EC	3 GALLONS	MOBIL VACUOLINE 1405	33	80	40
3280EC	4 GALLONS	MOBIL VACUOLINE 1405	33	80	40
2048DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2060DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2080DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
20120DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2448DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
2860DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40
3280DXNC	53 GALLONS	MOBIL VACUOLINE 1405	30	80	40



ROTARY GRINDERS

MODEL	HYDRAULIC AND LUBRICATION		POWER		
			KVA	AMPERAGE	
	CAPACITY	OIL TYPE		230 V	460 V
* PRG-6DXNC	6 GALLONS	MOBIL VACUOLINE 1405	20	50	25
* PRG-8DXNC	6 GALLONS	MOBIL VACUOLINE 1405	20	50	25
PRG-6	10 GALLONS	MOBIL VACUOLINE 1405	11	30	15

CYLINDRICAL GRINDERS

MODEL	LUBRICATION		POWER		
			KVA	AMPERAGE	
	CAPACITY	OIL TYPE		230 V	460 V
* OGM-820PB OGM-820PNCB OGM-820UB OGM-820UNCB	1 GALLON	MOBIL VACUOLINE 1405	13	35	20
* OGM-1224PB OGM-1224FNCB OGM-1224UB OGM-1224UNCB	1 GALLON	MOBIL VACUOLINE 1405	16	40	20
* OGM-1240PB OGM-1240FNCB OGM-1240UB OGM-1240UNCB	1 GALLON	MOBIL VACUOLINE 1405	20	50	25
* OGM-1260PB OGM-1260FNCB OGM-1260UB OGM-1260UNCB	1 GALLON	MOBIL VACUOLINE 1405	20	50	25
OGM-UST	1.5 GALLONS	MOBIL VACUOLINE 1405	10	30	15
OGM-UDX	1.5 GALLONS	MOBIL VACUOLINE 1405	10	30	15



NEW MACHINE WARRANTY

Warranties: Two Years Parts, One Year Labor

We Guarantee:

1. to replace, or, at our option, repair any products or parts thereof, which are found defective in material or workmanship within one year from date of installation of the machine at Buyer's site; and
2. to provide replacement parts to Buyer, or, at our option, repair any parts which are found defective in material or workmanship within two years from date of installation of the machine at Buyer's site; and
3. to provide any replacement of any replacement parts, or, at our option, repair any replacement parts which are found defective in material or workmanship within six months from the date of invoice of the replacement or repaired part to Buyer or within two years from the date of installation of the machine at Buyer's site, whichever is later;

If said product is shown to be properly lubricated and otherwise maintained according to the specifications supplied by the manufacturer. The time, labor, costs and expenses involved in the replacement and/or repair of any products or parts after one year from the date of installation of the machine at Buyer's site shall be at Buyer's sole expense. Notice of any claims for defects in material or workmanship must be given to the Seller in writing, within the warranty period. The Seller reserves the right to make inspection of the defective parts or equipment at the Buyer's site, before any claims will be allowed and before adjustment, credit, allowance, replacement, or return will be authorized. Our obligation with respect to such products or parts shall be limited to replacement or repair, as set forth in this paragraph and in no event shall we be liable for consequential or special damages, which may arise in connection with such products or parts. In no event shall we be liable for any costs of transportation, installation, adjustment or other expenses, which may arise in connection with such products, or parts except as expressly provided for in this warranty. Additionally, Seller shall not be liable or responsible for any repairs, additions or modifications made upon a product without prior written consent of the Seller. Those items not manufactured by Seller are sold with such warranty as provided by the manufacturer of said product.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, OR OTHERWISE (EXCEPT AS TO TITLE) OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY US, AND NO WAIVER, ALTERATIONS OR MODIFICATIONS OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND SIGNED BY AN EXECUTIVE OFFICER OF OUR CORPORATION.

THE SELLER'S OBLIGATIONS HEREUNDER ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES, WARRANTIES, GUARANTIES OR LIABILITIES INCLUDING BUT NOT LIMITED TO SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES WHETHER OR NOT OCCASIONED BY SELLER'S NEGLIGENCE

SELLER MAKES NO WARRANTY WHATSOEVER WHETHER EXPRESSED OR IMPLIED INCLUDING BUT NOT LIMITED TO MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR USE OR OTHERWISE IN RESPECT TO PARTS, ITEMS, PRODUCTS AND ACCESSORIES NOT MANUFACTURED BY SELLER.



Service after warranty Field Service Rates

(In US Dollars) for North America)

(USA, CANADA & MEXICO)
OKAMOTO HAS A 1 YEAR LABOR AND 2 YEAR PARTS WARRANTY

Effective Date January 1, 2004	Monday to Friday	Overtime Rate (over 8 hours per week day)	Saturday	Sunday	Holiday
Conventional Labor (per hour)	\$85.00	\$127.50	\$127.50	\$170.00	\$170.00
CNC Labor (per hour)	\$100.00	\$150.00	\$150.00	\$200.00	\$200.00
Travel (per hour) [max 12 hours R/T]	\$60.00	\$60.00	\$90.00	\$120.00	\$120.00
Minimum Charge (per day)	4 hours labor plus travel		8 hours		

CONVENTIONAL GRINDERS:
(**LINEAR** / DX I, II, III / **SADDLE** ST, N, Z, DX, DXV / **COLUMN** PSG, DX / **OGM** UST / **IGM** 1E, 3U, 2M, **PRG**, **CGM** 18BR, 20BR)

CNC GRINDERS:
(**SADDLE** KSK, NFG, CNC, PC, EX, DXNC / **COLUMN** ST, EX, DXNC / CHNC, BHNC, DCG / **OGM** / **IGM** 2 NC, 4 NC, 15 NC / **PRG** DXNC / **CFG**)

- Minimum billing increment 1/2 hour.
- *Living expenses* (lodging, etc.), *transportation costs* (airfare, rental car or taxi, parking, etc.), and *miscellaneous expenses* (supplies, etc.) are in addition to the rates and charges listed above. [NOTE: Meals are included in base rates.]
- Mileage is charged at 0.375 per mile for use of a company or personal vehicle.
- All time is charged at an hourly basis plus expenses. Okamoto Corporation will not honor "Fixed Fee" or "Not to Exceed" clauses on Purchase Orders.
- Travel to be charged on a round trip basis, time and expenses included.
- A hard copy of the purchase order is required before service can be scheduled. Include the machine type, serial # and a description of the problem on the PO. A credit card number is needed to complete service scheduling.



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