



# Pre-Installation Guide

2<sup>nd</sup> Edition

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## Pre-Installation Guidelines

Thank you for purchasing your new Okamoto grinding machine. This guide will help you prepare for installation. Prior to contacting Okamoto to schedule installation and training, please prepare your machine according to the following guidelines:

- ? Remove your machine from the skid and set it in its final resting place on the provided leveling pads. Avoid placing your machine on or in proximity of cracks and/or saw cuts. Roughly level the machine with a bubble level.
- ? Add the proper type and amount of oil to your machine. For oil requirements for your specific model, please refer to the charts included in this booklet. **Use recommended oil(s) only.**
- ? Wipe grease and dirt from table surface and machine body. It is extremely important that the Cosmoline (grease) is thoroughly removed 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 its top and bottom surfaces with solvent.
- ? Supply input power line to the 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.**
- ? A tag on the main panel states how the machine was wired by the factory (230V or 460V). **If there is no tag, assume that the machine is wired for 230V and contact Okamoto Service Department.** NOTE: EX and EXB models have an external transformer (200V secondary) that will need to be wired.
- ? **Do not apply power to the machine!** Any damages resulting from failure to follow this guideline will not be covered under warranty.
- ? If applicable, install all necessary air and plumbing connections required for pneumatic controls and actuators.
- ? 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 the information contained within this booklet or the requirements for your machine, please contact your sales representative or Okamoto Service Department at (847) 520-7700 ext 2. Also, feel free to visit our website at [www.okamotocorp.com](http://www.okamotocorp.com).

Okamoto technician, or, in some cases, Okamoto-authorized technician will be responsible for:

- ? Installing splash guards and/or options
- ? Leveling the machine
- ? Changing voltages, if necessary
- ? Grinding top and bottom surfaces of the magnetic chuck.
- ? Checking operations
- ? Training your operators

Machine level should be checked weekly until the machine settles to the foundation, then monthly after that. In some cases, machine may require future re-leveling.

## Oil for Surface Grinders

In order to extend longevity of its machines, Okamoto researched and tested a number of different oils and their specifications. It was concluded that **Mobil Vacuoline 1405** provides the most optimal hydraulic and lubrication properties which result in the utmost accuracy and least downtime. Therefore, Okamoto Corporation recommends using **Mobil Vacuoline 1405** in all of its surface grinders. Oil should be inspected every 6 months and changed once a year, or every 3000 machine-hours (whichever comes first). Moreover, machine's hydraulic and lubrication systems should be flushed at least once every five years. For flushing procedures, please visit our website at [www.okamotocorp.com](http://www.okamotocorp.com), or contact Okamoto Service Department at (847) 520-7700 ext 2.

NOTE: During warranty period, machine **must be** filled with **Mobil Vacuoline 1405**. Warranty will be suspended, if the machine is found to contain different oil.

# Oil and Power Requirements

## Linear/ST/DX/DXV Saddle Type Grinders

MODEL	OIL		POWER		
	AMOUNT	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
6.8DX2			5	15	10
6.18DX3					
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

**MDI/CNC Saddle Type Grinders**

MODEL	OIL		POWER		
	AMOUNT	TYPE	KVA	AMPERAGE	
				230 V	460 V
820EX 820EXB	21 GALLONS	MOBIL VACUOLINE 1405	8.5	25	15
1224EX 1224EXB	32 GALLONS	MOBIL VACUOLINE 1405	12	30	15
1624EX 1624EXB	43 GALLONS	MOBIL VACUOLINE 1405	12	30	15
1632EX 1632EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2024EX 2024EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2036EX 2036EXB	48 GALLONS	MOBIL VACUOLINE 1405	12	30	15
2040EX 2040EXB	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	OIL		POWER		
	AMOUNT	TYPE	KVA	AMPERAGE	
				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. 3			
	6 GALLONS	MOBIL VACUOLINE 1405			

## Column Type Grinders

MODEL	OIL		POWER		
	AMOUNT	TYPE	KVA	AMPERAGE	
				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	OIL		POWER		
			KVA	AMPERAGE	
	AMOUNT	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	OIL		POWER		
			KVA	AMPERAGE	
	AMOUNT	TYPE		230 V	460 V
OGM-820PB OGM-820PNCB OGM-820UB OGM-820UNCB	1 GALLON	MOBIL VACUOLINE 1405	13	35	20
OGM-1224PB OGM-1224PNCB OGM-1224UB OGM-1224UNCB	1 GALLON	MOBIL VACUOLINE 1405	16	40	20
OGM-1240PB OGM-1240PNCB OGM-1240UB OGM-1240UNCB	1 GALLON	MOBIL VACUOLINE 1405	20	50	25
OGM-1260PB OGM-1260PNCB 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

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.

## Post-Warranty Service

### Field Service Rates (in US Dollars) for North America (USA, Canada & Mexico)

Effective Date January 1, 1999	Monday to Friday	Overtime Rate (over 8 hours per weekday)	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		

### Field Service Rates (in US Dollars) for Central and South America

Effective Date January 1, 1999	Monday to Friday	Overtime Rate (over 8 hours per weekday)	Saturday	Sunday	Holiday
Conventional Labor (per hour)	\$100.00	\$150.00	\$150.00	\$200.00	\$200.00
CNC Labor (per hour)	\$125.00	\$187.50	\$187.50	\$250.00	\$250.00
Travel (per hour) [max 12 hours R/T]	\$75.00	\$75.00	\$112.50	\$150.00	\$150.00
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 ½ 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 0.35 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 number and a description of the problem on the PO.
- ? All service invoices will be charged onto customer’s credit card. Therefore credit card information is needed to complete service scheduling.

## Okamoto Service Department

**Address**

1342 Barclay Blvd  
Buffalo Grove, IL 60089

**Business Hours**

Mon-Fri 7:30 AM – 11:30 AM 12:30 PM - 4:30 PM (CST)

**Phone**

(847) 520-7700 ext. 2

**Fax**

(847) 777-2401

**Internet**

[www.okamotocorp.com](http://www.okamotocorp.com)

## Okamoto Parts Department

**Address**

1342 Barclay Blvd  
Buffalo Grove, IL 60089

**Business Hours**

Mon-Fri 7:30 AM – 11:30 AM 12:30 PM - 4:30 PM (CST)

**Phone**

(847) 520-7700 ext. 3

**Fax**

(847) 777-7209

**Internet**

[www.okamotocorp.com](http://www.okamotocorp.com)

For warranty parts please contact your local Okamoto dealer, or Okamoto Service Department.