

Setting Work Offsets (Part Zero)

DynaPath WinDelta CNC Lathe Control · Operator Quick Guide

A work offset tells the control where part zero is. Programs call it with **G54–G59**; after every RESET the control returns to G54. X part zero is normally the spindle centreline, so usually only Z needs setting. [4.10, 8.2]

The work offset screen — MODE → 6 WORK OFFSET Manual 8.2

DYNAPATH  JOG		WORK OFFSET					inch																								
	G54 (REF A)	G55 (REF B)	G56 (REF C)	G57 (REF D)	G58 (REF E)	G59 (REF F)																									
X	0.0000	0.0000	0.0000	0.0000	0.0000	-6.2979	X AXIS																								
Z	-27.2861	0.0000	0.0000	0.0000	0.0000	-17.5905	Z AXIS																								
C	0.000	0.000	0.000	0.000	0.000	0.000	C AXIS																								
<table border="1"> <thead> <tr> <th></th> <th>EXOFS</th> <th>MACHINE</th> <th>RELATIVE</th> <th>ABSOLUTE</th> <th>OFFSET BY MPG</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>-3.0000</td> <td>-3.2926</td> <td>-3.2926</td> <td>-0.2926</td> <td></td> </tr> <tr> <td>Z</td> <td>2.0000</td> <td>-22.5479</td> <td>-22.5479</td> <td>2.7382</td> <td></td> </tr> <tr> <td>C</td> <td>0.000</td> <td>281.426</td> <td>281.426</td> <td>11.0798</td> <td></td> </tr> </tbody> </table>									EXOFS	MACHINE	RELATIVE	ABSOLUTE	OFFSET BY MPG	X	-3.0000	-3.2926	-3.2926	-0.2926		Z	2.0000	-22.5479	-22.5479	2.7382		C	0.000	281.426	281.426	11.0798	
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SPINDLE CMD: 200 RPM SPINDLE1 (S): 0.0 RPM FEED RATE: 0.0000inch/min SPINDLE2 (S): 0.0 RPM RAPID: 50 % SP LOAD: 0.0 %																															
G54 ABS 0.0000 SET																															
MESSAGE																															
JOG	MPG	TOOL OFFSET	TOOL WEAR	ALIGN- MENT	BACK																										

WORK OFFSET screen: X / Z / C AXIS buttons, EXOFS and ABS SET [Fig. 8.2-1]

- 1 Select the work offset to set (G54–G59).
- 2 Change to the reference tool. Jog or MPG until the tool tip touches the part or fixture.
- 3 Set part zero one of three ways (below).
- 4 If needed, use **EXOFS** (external offset) to shift the zero. It applies on top of every work offset and is always active.

Three ways to set part zero Manual 8.2

Way	How
Type it in	Tap the field under the work offset number and enter the machine-coordinate value.
Set here	With the tool touching, press X AXIS , Z AXIS or C AXIS on the right to set that axis' zero at the current position.
ABS SET	Select the offset and axis, then type the measured or target ABS value (e.g. Z0 on the faced end) in ABS SET at the bottom of the screen and press SET.

NOTE Set the tool offsets first (Guide 3). With Methods 2 and 3, always touch off with the reference tool. Remember X is a diameter, and check the program calls the same offset you set, e.g. G54.