



Custom REF POINT 700016 CONTROL ON PUSH BUTTON IS OFF (MCP: K1)

**SETTING DATA**

**AXES: X C**

ACTUAL POSITION: -67.765 252.328

DISTANCE TO GO: 0.000 0.000

R0 : PART NO.: 12345678

**\*\* CYCLE SETTING DATA :-**

R1 : NØ. OF TEETH OF GEAR (nos.)	42 nos.
R2 : X/TABLE HOME/START POSITION (minus mm.)	-1.000 mm.
R3 : JOB TOUCH POSITION (minus mm.)	-28.000 mm.
R4 : DEPTH OF CUT (Max.17mm)	1.270 mm.
R5 : CUTTING FEEDRATE (mm/min.)	200.000 mm/min.
R6 : CUTTING SPINDLE RPM (Max.3000)	3000 rpm.
R7 : INDEX CORRECTION (-2.00 to 2.00 deg.)	0.000 deg.
R8 : AUTO UNCLAMP SELECTION (0=OFF,1=ON)	0 no.

**SETTING DATA**

M-CODE LIST

PLC INPUTS

PLC OUTPUTS

EXIT



Custom REF POINT 21614 ↓ [red X] hardware limit switch

**HURTH ZK10 CNC CHAMFERING**

**\*\* HURTH. :-**

- \* CNC (3-axis) GEAR CHAMFERING
- \* Model No. : ZK10, Sr. No.: 20512
- \* Project No.: Project258.HURTH CHAMFERING\_ZK10\_020D

**\*\* Capacity:-**

- \* Spindle slide stroke (X-axis) Max.= 100mm
- \* Cutter spindle speed Max.= 3000rpm
- \* Spindle slide stroke Max.= 100mm
- \* Indexing Head horizontal adjustment Max.= 540mm
- \* Cutter spindle head vertical adjustment Max.= 200mm
- \* Cutter spindle head swivel range Max.=90d

\*\* Press SETTING DATA for Cycle Setting :-

SETTING DATA

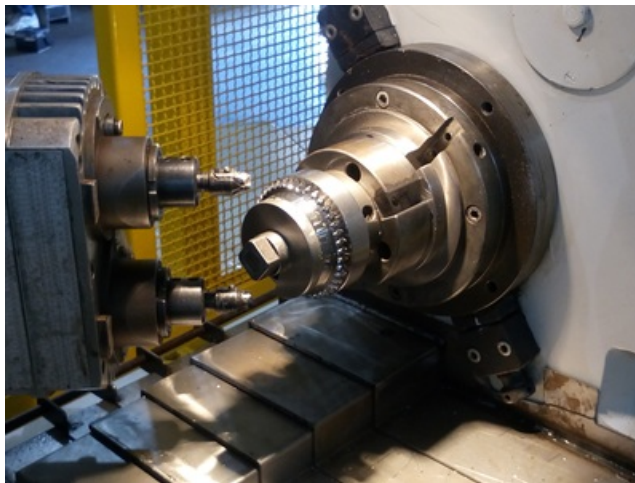
M-CODE LIST

PLC INPUTS

PLC OUTPUTS

EXIT





<b>Machine Id</b>	<b>:- 1264</b>	<b>Serial No</b>	<b>:- 20512</b>
<b>Category</b>	<b>:- Hurth Machines For Sale</b>	<b>Model</b>	<b>:- ZK 10 CNC</b>
<b>Country</b>	<b>:- Germany</b>	<b>Make</b>	<b>:- Hurth CNC</b>
<b>Type of Machine</b>	<b>:- cnc gear tooth chamfering machine without Indexing Plates With Telescopic Covers and Safety Guards</b>	<b>Year</b>	<b>:- 2016</b>
<b>Weight</b>	<b>:- 2200.0</b>	<b>Dimensions</b>	<b>:- Overall Floor space: 1750x 2200mm, Height 1400mm</b>
<b>Power</b>	<b>:- 6.88KW</b>	<b>Location</b>	<b>:- Mumbai India...Under Power</b>

Specification :-

**we wish to bring to your notice the advantages of our Hurth ZK10 chamfering machine which we have converted into CNC .**

**The CNC control used is Siemens 828D and The advantages are as follows :**

1. 1. **Instead fixed stroke length (old: 8/12/17mm), we can set now variable up to 100mm traverse of X-axis (stroking axis)**
1. 2. **Minimum No. of strokes limit removed now (limit was 30-strokes)**
1. 3. **Minimum no. of teeth limit removed now (limit was 6-teeth) Now it can be possible as little as one tooth.**
1. 4. **Maximum no. of teeth limit removed now (limit was 200-teeth) Now it can be possible from 1-360 teeth.**
  
- 5 **No index plate is required as this is controlled by “C” axis controlled by servo motor. CNC indexing offers much higher accuracy. Indexing correction is now possible from screen table -2.0 to +2.0 degree during production without changing mechanical setting.**
1. 6. **Cutter spindle RPM limit increased (old: 2800rpm with two speed stage of motor) Now it is variable. At present set 3000rpm which can also be increased as per Spindle head capacity.**
7. **Knee table movement (In/OUT) setting is motorized as we have fitted a Gearbox motor which can be operated from machine operator control panel thus reducing setting time.**
- 8 **Automatic Job clamp/unclamp is it selectable from CNC screen data table making it more user friendly.**
- 9 **In-feed slide (stroking slide) was on Cam operating mechanism and now it is an axis which is operated by CNC servo motor so In-feed accuracy is much higher**
10. **Earlier m/c was conventional and mechanical and now it is removed by cnc servo axes so old mechanism maintenance is removed.**

**The CNC control used is Siemens 828D . The proto type machine is now ready for any trial at our works in Mumbai.**

**Siemens 828D CNC Control.**

**No Need Of Indexing Plates.**

**Machine with Twin Spindle Adjustable Head.**



# **HURTH ZK10 CNC 3-axes (2-axis + Spindle) Gear Chamfering & Deburring machine**

## **Salient Features:**

- 1. 1. Variable traverse (X axis) of stroke length can be up to 100mm. It is servo driven and offer a high infeed accuracy.**
- 1. 2. Quill Stroke rates 1 to 170 rpm**
- 1. 3. CNC Indexing (C axis) offers better indexing accuracy. Further correction of indexing accuracy is possible from the input sheet.**
- 1. 4. Cutter spindle RPM limit increased to 3000 rpm and is variable.**
- 1. 5. The Knee table movement (In/out) setting is motorized.**
- 1. 6. The Automatic Job clamp/unclamp is available. Clamping is with push button and unclamping is programmable.**

## **Technical Details:**

**Maximum work piece 400mm**

**Range of Module for Chamfering 1 to 12 module**

**No. of teeth 1 to 360 teeth**

**Cutter Spindle speeds variable up to 3000rpm**

**Quill strokes variable 120rpm at 8mm stroke length**

**Quill stroke length 100mm**

**Range of Motors**

- 1. 1. Servo Spindle Motor: SIEMENS 3-phase 415v, 3.7kw,1500rpm**
- 2. 2. X-axis (In-feed) Servo Motor: Siemens 3-phase 415v, 6nm, 3000rpm ( 1.5 Kw)**
- 3. 3. C-axis (Indexing) Servo Motor: Siemens 3-phase 415v, 6nm, 3000rpm ( 1.5Kw)**
- 4. 4. Head Setting Motor: 3-phase 415v 0.18kw, 1380rpm with reduction Gearbox .**

**Total connected load: 6.88KW**

**Overall Floor space: 1750x 2200mm, Height 1400mm**

**Approximate weight: 2200kg**