

AUTOMOTIVE STEERING RACK PRODUCTION GRINDING MACHINE



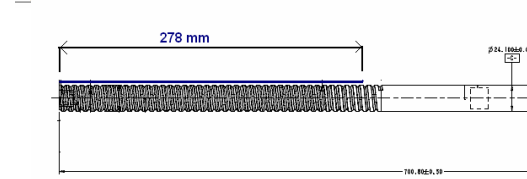
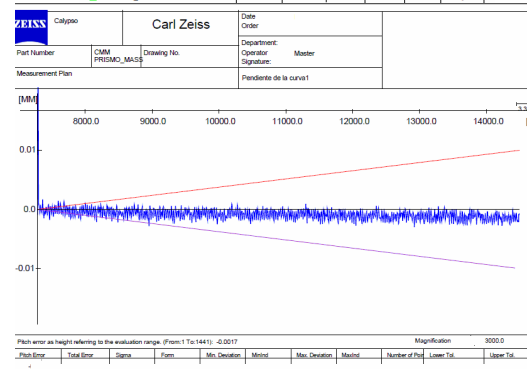
Doimak RER-1000-HP machine: High Production Steering Rack grinding

Miscellaneous

- High production Steering Rack Grinding Machine.
- Fully automatized. 38 seconds cycle time floor to floor*.
- Built-in motors in wheelhead and workhead.
- High speed CBN grinding.
- Optimum accuracy. Automatically controlled quality parameters**

Messprotokoll ZEISS Calyso					
Plan Name	Date	ZEISS			
Drawing No.	Time	Order			
	5:03:18 pm				
Operator	Master	Incremental Part Number			
	CM1	C020A			

Name	Actual	Normal	pos Tol	neg Tol	CP	→←
180 Degree Lead_Z	3.4588	3.5500	0.0040	-0.0040	-2.0012	+
1 Rev Lead_Z	7.0000	7.0000	0.0040	-0.0040	0.0000	
5 Rev Lead_Z	35.0000	35.0000	0.0060	-0.0060	0.0000	
10 Rev Lead_Z	69.9999	70.0000	0.0060	-0.0060	-0.0011	
15 Rev Lead_Z	104.9972	105.0000	0.0060	-0.0060	-0.0028	-
20 Rev Lead_Z	139.9980	140.0000	0.0110	-0.0110	-0.0020	-
Max Over Balls Dia	30.0586	30.0540	0.0120	-0.0120	0.0026	+
Min Over Balls Dia	30.0544	30.0540	0.0120	-0.0120	0.0004	+
Taper MaxMin	0.0022	0.0000	0.0120	0.0000	0.0022	-
Avg Diameter Over All Balls	30.0558	30.0540	0.0120	-0.0120	0.0018	+
SPAGNINETSG_HELIX	0.0010	0.0000	0.0050	0.0000	0.0010	+
ROUNDNESS_SINGLE_REV1	0.0009	0.0000	0.0050	0.0000	0.0009	+
ROUNDNESS_SINGLE_REV5	0.0006	0.0000	0.0050	0.0000	0.0006	+
ROUNDNESS_SINGLE_REV10	0.0006	0.0000	0.0050	0.0000	0.0006	+
ROUNDNESS_SINGLE_REV15	0.0009	0.0000	0.0050	0.0000	0.0009	+
ROUNDNESS_SINGLE_REV20	0.0010	0.0000	0.0050	0.0000	0.0010	+
Cylindricity_HELIX_180_REV	0.0017	0.0000	0.0080	0.0000	0.0017	+
Cylindricity_HELIX_90_REV	0.0017	0.0000	0.0080	0.0000	0.0017	+
Cylindricity_HELIX_11015_REV	0.0014	0.0000	0.0080	0.0000	0.0014	+
Cylindricity_HELIX_1800_REV	0.0019	0.0000	0.0080	0.0000	0.0019	+
Cylindricity_HELIX_TOTAL_REV	0.0023	0.0000	0.0150	0.0023	0.0023	+
Formal_HELIX_TOTAL	0.0024	0.0000	0.0050	0.0024	0.0024	+
Cosality_OD_HELIX	0.0013	0.0000	0.0070	0.0013	0.0013	+
O.D. Bottom	25.1480	25.1500	0.0100	-0.0100	-0.0020	-
O.D. Top	25.1443	25.1500	0.0100	-0.0100	-0.0057	-
O.D. Bottom over scratch	25.1472	25.1500	0.0100	-0.0100	-0.0028	-
O.D. Top over scratch	25.1446	25.1500	0.0100	-0.0100	-0.0054	-
DA_OD_Rev 1	30.0549	30.0540	0.0120	-0.0120	0.0009	+
DA_OD_Rev 6	30.0581	30.0540	0.0120	-0.0120	0.0021	+
DA_OD_Rev 11	30.0552	30.0540	0.0120	-0.0120	0.0012	+
DA_OD_Rev 16	30.0548	30.0540	0.0120	-0.0120	0.0008	+
DA_OD_Rev 20	30.0544	30.0540	0.0120	-0.0120	0.0024	+
Pendentes de la curvat	-0.0017	0.0000	0.0100	-0.0100	-0.0017	-
Ondulacion_0mm	0.0499	0.0000	0.1500	0.0499	0.0499	+
Ondulacion_0.4mm	0.0461	0.0000	0.1500	0.0461	0.0461	+
Ondulacion_1.6mm	0.0541	0.0000	0.1500	0.0541	0.0541	+

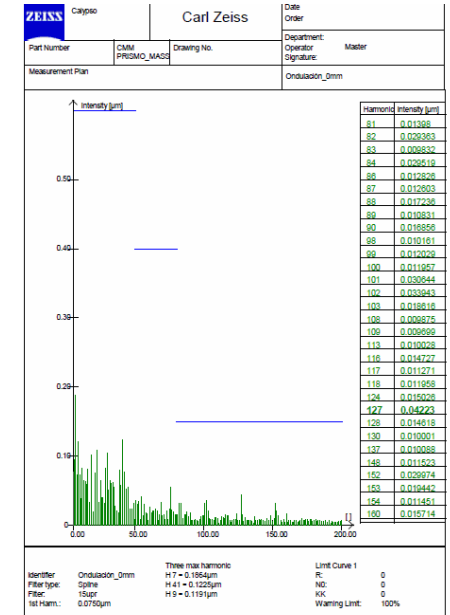


Customized grinding technology

Optimum relation cycle time-quality.

Widely proved acknowledgment in automotive sector is applied in the cell. In-process tolerance control and extremely productive cycle time combined for a common purpose: solutions to the high demanding standards in automotive sector.

Doimak developed programming for grinding cycles. Doimak developed programming for manufactured rack's traceability.



Technical data

Main dimensions:

Length between centers	1.000 mm
Swing over table	200 mm
Weight between centers	25 Kg
Machine dimensions	4,420 x 2,169 x 2,005 mm
Machine Total weight	6.500 Kg

Transversal slide X:

Maximum travel	350 mm
Maximum travel speed	6,000 mm/min – 25,000 mm/min
Linear scale resolution	0.0001 mm

Transversal slide Z:

Maximum travel	1.050 mm
Maximum travel speed	6,000 mm/min – 25,000 mm/min
Linear scale resolution	0.0001 mm

Wheelhead:

Cylindrical grinding wheel diameter	500 mm
Cylindrical grinding wheel width	45 mm
Max. Peripheral speed	60 – 130 m/s
Main motor power	24 kW-37 kW (54 kW)

