

# ZM2

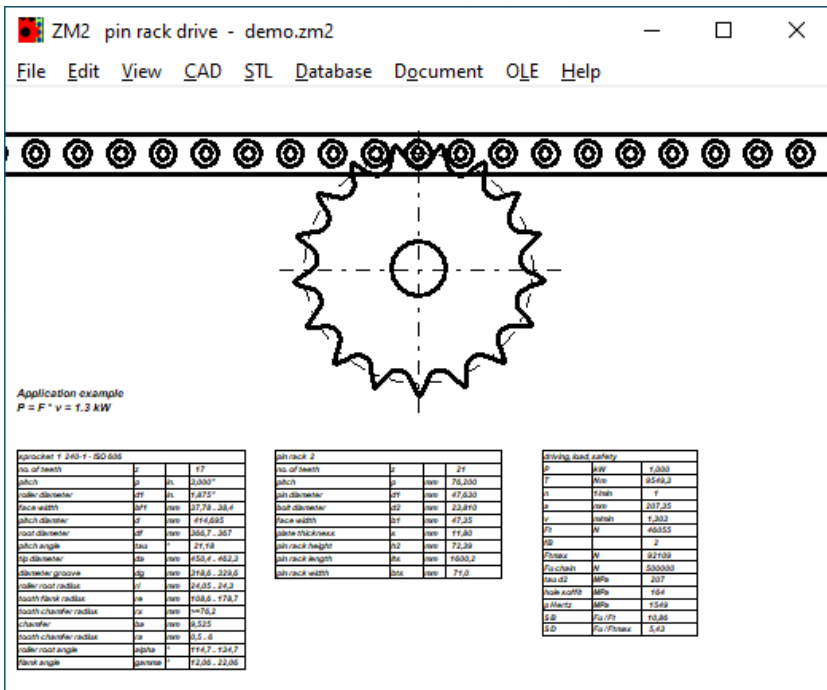
## Pin Rack Drives



www.hexagon.de

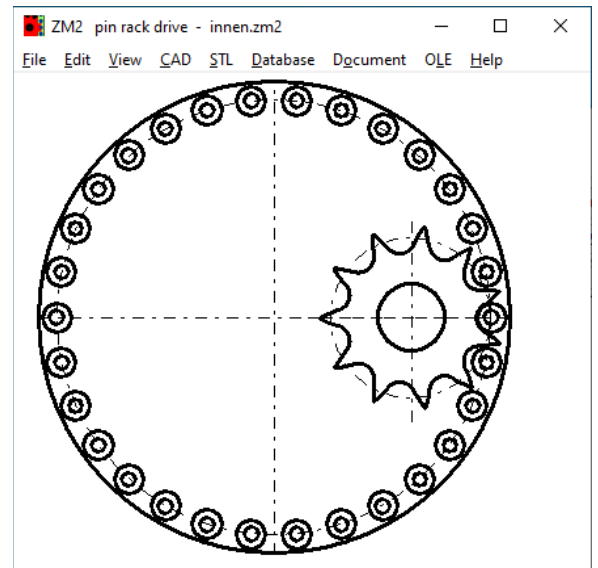
Software for Windows

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### Pin Rack Drive

ZM2 calculates the dimensions and strength of pin rack drives. The tooth profile can be selected from the supplied database according to ISO 606 or DIN 8187/8188. Additionally, instead of a pin rack, a pin wheel with bolts on a pitch circle can be calculated,



roller chains acc.to ISO 606

NR	INFO	P	D1	B1	D2	H2	PT	B3
160	32A		50,8	28,58	31,55	14,29	48,26	58,55
32B			50,8	29,21	30,99	17,81	42,29	58,55
160H			50,8	28,58	31,55	14,29	48,26	61,9
160HE			50,8	28,58	31,55	14,29	48,26	61,9
180	36A		57,15	35,71	35,48	17,46	54,3	65,84
180H			57,15	35,71	35,48	17,46	54,3	69,16
180HE			57,15	35,71	35,48	17,46	54,3	69,16
200	40A		63,5	39,68	37,85	19,85	60,33	71,55
40B			63,5	39,37	38,1	22,89	52,96	72,29
200H			63,5	39,68	37,85	19,85	60,33	78,31
200HE			63,5	39,68	37,85	19,85	60,33	78,31
240	49A		76,2	47,63	47,35	23,81	72,39	87,83
48B			76,2	48,26	45,72	29,24	63,88	91,21
240H			76,2	47,63	47,35	23,81	72,39	101,22
240HE			76,2	47,63	47,35	23,81	72,39	101,22
56B			88,9	53,98	53,34	34,32	77,85	106,6
64B			101,6	63,5	60,96	39,4	90,17	119,89
72B			114,3	72,39	68,58	44,48	103,63	136,27

### Dimensioning

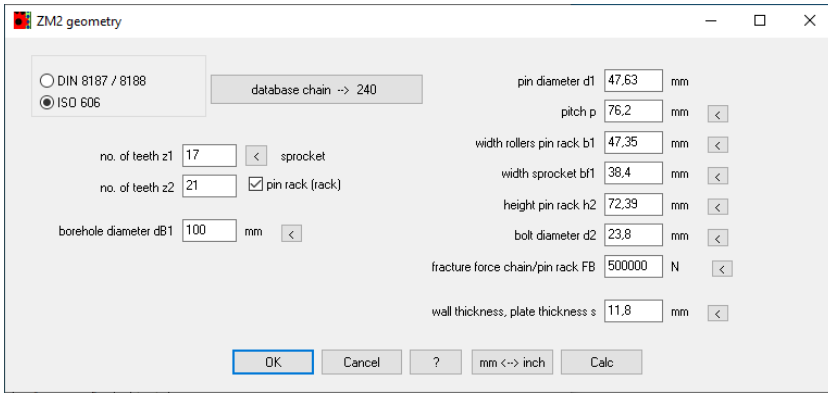
ZM2 searches the database for a suitable tooth profile based on the transmission ratio, power and drive speed and suggests this for adoption.

### Recalculation

The desired tooth profile is selected from the database. Or the pitch, bolt and roller diameter, width and height of the pin rack are entered directly.

### Strength Calculation

ZM2 calculates the resistance to breakage in the same way as the strength calculation for a chain drive. In addition, Hertzian pressure between the drive wheel and the pin rack are calculated.



## Profile database

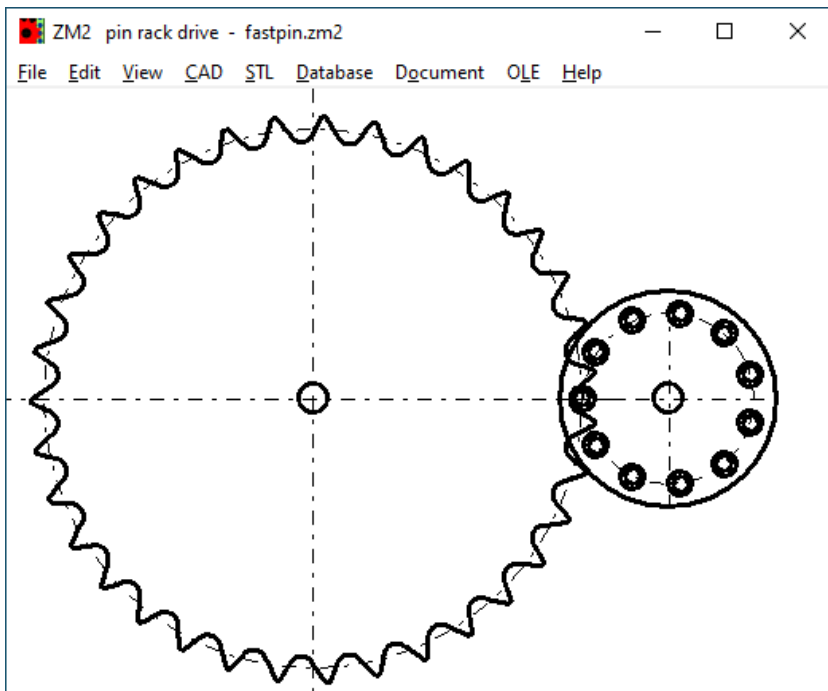
The database supplied contains the required dimensions of the tooth profile in accordance with DIN ISO 606 (including H and HE), DIN 8187 and DIN 8188.

## Printout

The calculation results together with the input data can be output on any Windows printer. Alternatively, ZM2 generates an HTML or TXT file for further processing or for opening with an Internet browser.

## Drawings

You can display and print out drawings of the drive wheel and pin rack on the screen or transfer them to CAD using the DXF or IGES interface.



## Quick view

In the Quick view, drawings and tables with dimensions and calculation results are displayed and printed out on one page.

## Manufacturing drawing

ZM2 generates a production drawing of the drive wheel and pin rack with drawing header according to ISO 7200. Drawing details and changes can be entered and saved in ZM2.

## Animation

An animation on screen can be used to simulate the moving pin rack and rotating drive wheel.

## CAD interface

The drawings can be generated as DXF or IGES files and transferred to CAD. A true-scale drawing of the tooth profile can be imported into CAM as DXF.

## STL interface

Drive wheel and pin rack can be generated as an STL file and printed with a 3D printer.

## HEXAGON help system

A help text and auxiliary images can be displayed for all entries. Help texts and help images can be modified and expanded by the user. If error messages appear, a description and possible remedies can be displayed.

## Units

ZM2 can be switched between metric units (mm, N, MPa) and imperial units (inch, lbf, psi).

## Scope of delivery

Calculation program with user manual (pdf), database files, license for an unlimited right of use.

## System requirements

ZM2 is available as a 32-bit and 64-bit application for Windows 10, 8, 7.

## Guarantee

HEXAGON offers a 24 month guarantee. HEXAGON software is continuously updated and improved, customers are regularly informed about updates and new releases.

