

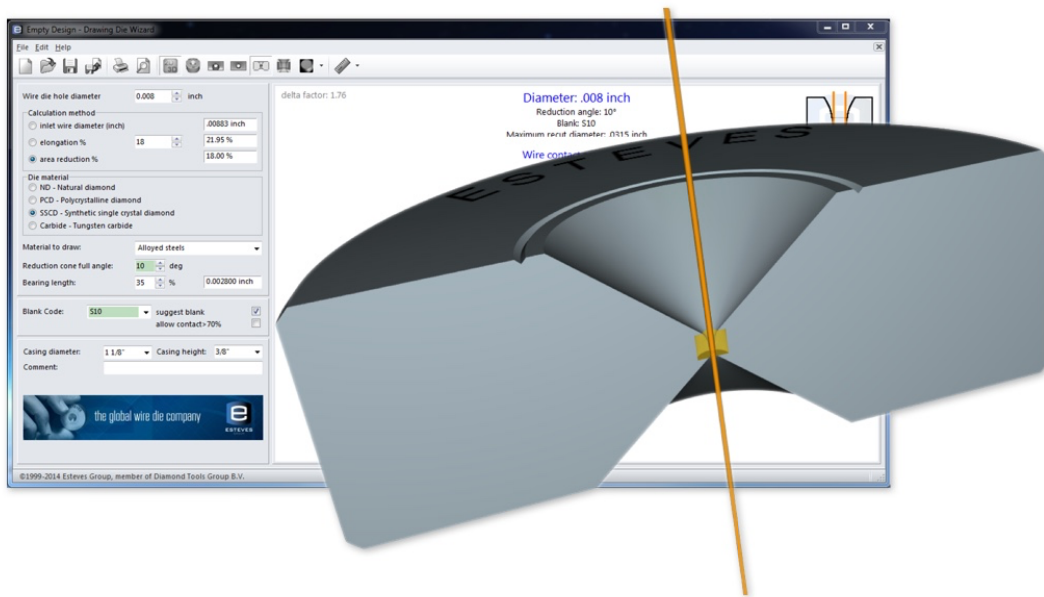
Drawing Die Wizard

Simplifying Wire Calculations and Production Planning for the Wire and Cable Industry.

Presented by: Esteves Group

Availability: Free for current customers

Operating System Requirements: Microsoft Windows 7 or later



Executive Summary

The Drawing Die Wizard™ is a powerful, free software application designed by Esteves Group to assist wire drawing professionals in the configuration and selection of drawing die blanks and profiles. With a user-friendly interface, this tool enables precise visualization and analysis of the inner geometry of drawing die nibs based on specific user-defined process parameters. Available exclusively to Esteves Group customers, the software is equipped to deliver optimized die profiles, accurate measurements, and real-time 2D/3D visualizations, making it an indispensable tool for wire drawing optimization.

Overview

Wire drawing is a complex process that requires precision and careful consideration of die geometry to achieve the best results in terms of drawability, wire quality, and overall process efficiency. Esteves Group's Drawing Die Wizard was created to simplify the die configuration process, allowing users to quickly visualize and modify drawing die profiles while ensuring compatibility with various die blank materials such as tungsten carbide (TC), polycrystalline diamond (PCD), synthetic single crystal diamond (SSCD), and natural diamond (ND).

Key Features and Functionalities

1. Die Profile Configuration

The Drawing Die Wizard allows users to easily create, view, and analyze drawing die profiles in either 2D or 3D. Users can choose from a variety of die blank materials and dimensions, see whether a particular profile fits inside a selected blank, and make real-time modifications to the geometry to achieve the desired result.

2. Real-Time 3D Visualization

The software provides a powerful 3D modeling engine that enables users to rotate, zoom, and inspect the die profile from different angles. This feature is essential for visual learners and is widely used in training courses to help users understand the physical characteristics of the die, its wear patterns, and the impact of wire deformation.

3. Cross-Section Analysis

Users can split the die profile in a cross-section view to see the wire's contact position, deformation length, and point of engagement within the die. This functionality helps evaluate the wear ring and predict potential points of failure.

4. Profile Part Identification

By using the profile parts indicator, the Drawing Die Wizard color-codes each section of the die profile for quick identification:

- Green: Entrance cone (bell)
- Yellow: Reduction cone (angle)
- Red: Bearing (cylinder)
- Purple: Back relief (wire back)
- Blue: Exit cone (shape back)

These indicators are valuable for training and technical discussions, ensuring users are aware of each segment's role in wire drawing.

5. Wear Ring Visualization

Understanding the wear patterns in a die is crucial for predicting tool life and maintaining product quality. The software's wear ring visualization tool models the formation and evolution of wear rings based on wire movement and reduction angle. This is a key feature for users seeking to extend die life and lower their total cost of ownership.

6. Comprehensive Report Generation

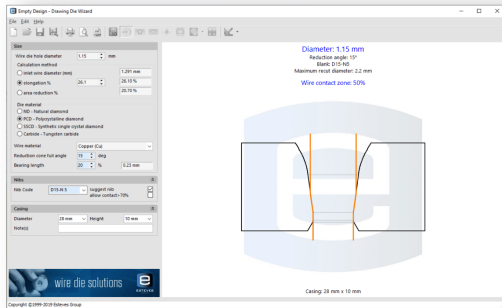
The Drawing Die Wizard enables users to generate detailed reports of their die configurations, complete with profile illustrations, measurements, and recommendations. Users can print these reports, save them as PDF files, or share them with colleagues for collaborative review.

7. Multilingual Support

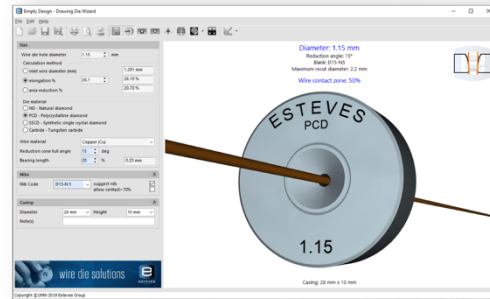
The software is available in multiple languages, including English, Catalan, Chinese, French, German, Italian, Polish, Portuguese, Russian, and Spanish, making it accessible to a diverse global user base.

Drawing Die Wizard

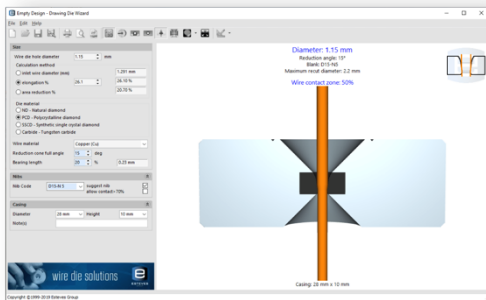
By Carsten van der Putten, December 17, 2024



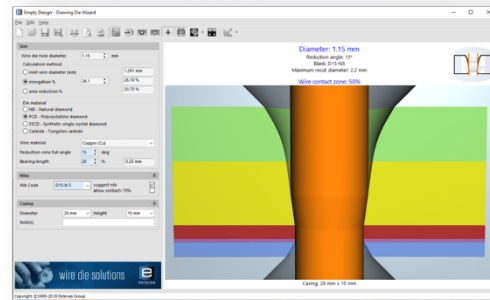
Die profile view



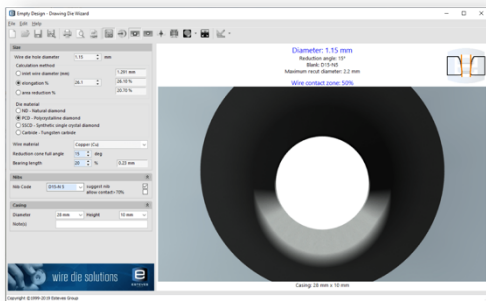
Real-time 3D



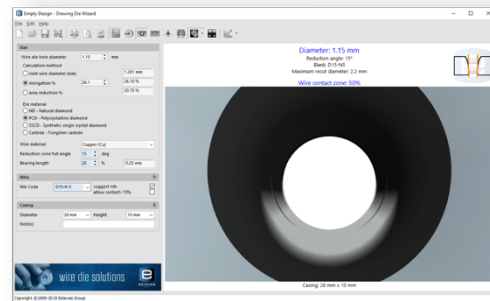
3D cross section view



Indicating profile parts



Microscope view



Wear ring review

Growing User Base

With more than 2,500 active users globally, the Drawing Die Wizard has established itself as a trusted tool in the wire drawing industry. Esteves Group continues to enhance the software to meet the evolving needs of wire drawing professionals, ensuring it remains a go-to solution for efficient die configuration.

Technical Specifications

The Drawing Die Wizard runs on Windows 7 or later, requiring a 1 GHz processor, 2 GB of RAM, and at least 100 MB of storage. For optimal 3D performance, a system with a dedicated or integrated graphics processor is recommended. A display resolution of 1024x768 or higher is advised.

Use Case: Optimizing Die Profiles for Wire Drawing

The Drawing Die Wizard enables users to experiment with different geometries and blanks to find the optimal configuration for their wire drawing needs. Esteves Group's software reduces trial-and-error in selecting the right nib size and shape, improving productivity and wire quality. Users can input their desired wire size, select a blank, and instantly see if the die profile fits, with recommendations for improving drawability and extending die life.

Training and Support

Esteves Group understands the importance of continuous learning in the wire drawing industry. The Drawing Die Wizard is widely used in training sessions and technical courses, providing users with a hands-on tool to visualize die configurations and understand the complex dynamics of wire drawing. Esteves Group sales engineers are available to assist customers with any questions or to provide recommendations on optimizing die profiles for specific alloys and drawing applications.

Future Developments and Customization

Esteves Group is continually improving the Drawing Die Wizard based on user feedback and technological advancements. A new release is currently in development, which will incorporate several powerful features from our Eddie Wire Solutions app, bringing advanced functionality to an even wider audience.

This upcoming release will also modernize the user interface, ensuring seamless integration with the latest Windows operating systems. It will include support for both dark and light themes, providing an improved and customizable user experience.

Conclusion

The Drawing Die Wizard by Esteves Group is more than just a die configuration tool; it is a comprehensive solution designed to streamline the die selection process, improve wire drawability, and reduce tooling costs. With its robust feature set, real-time visualization, and training capabilities, the Drawing Die Wizard is set to become the standard for die configuration in the wire drawing industry.

For more information or to download the Drawing Die Wizard, visit the Esteves Group website or contact a sales engineer.