



# Diamond Coated Dies

## Cabling tools

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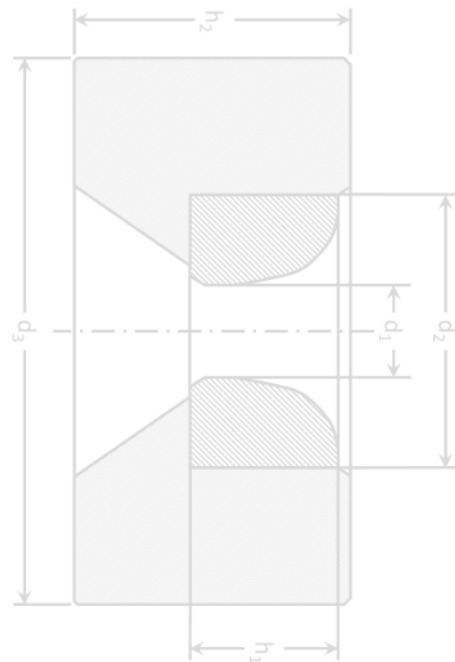


Excellent conductivity through the use of diamond coated dies enable cable makers to cut costs.

## Highlights

- Smooth cable surface
- Low friction coefficient
- Available for large diameters

Bunching, stranding, and compacting dies are often used to form multi-wire electrical cables. A bunching or stranding die groups single and multiple wires together, whereas a compacting die compacts the multi-wire strand to the required form factor.



State-of-the-art diamond coating technology and tight diameter tolerances of **Esteves Group** diamond coated dies give the cable company the ability to save material and manufacturing costs.

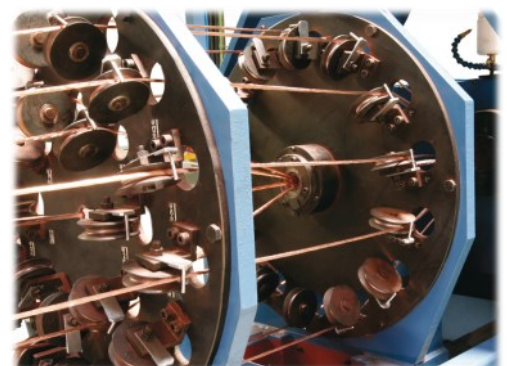
The ultra-smooth layer of diamond on a tungsten carbide die ensures the smoothest wire and cable surface that is possible today. The diamond coated die is the ideal combination of large-size availability of tungsten carbide and the ideal surface properties of randomly oriented synthetic diamond.

As electrical current flows through the surface of the wire, a smooth surface leads to higher conductivity than was previously obtainable by using tungsten carbide dies. This can enable the cable manufacturer to save raw material as the same conductivity is obtained with a smaller diameter cable. Diamond coated dies reduce the power required to bunch, strand, or compact the conductor by minimizing friction.

## We Specialize in...

- Wire Drawing Dies
- Bunching, Stranding & Compacting Dies
- Split Dies
- Tubing Dies
- Shaped Dies
- Extrusion Tooling
- Die Reconditioning Tools
- Engineering Services
- Customer Support

Possible **material savings** and lower **power usage** all add up to more profit for the wire and cable manufacturer.





# Diamond Coated Dies

## Cabling tools

### Key Features

- Ultra-smooth tool surface
- Low friction coefficient
- High diameter accuracy
- High wear resistance
- Available even for large diameters

### Benefits

- Conductor wire or cable material savings
- Reduced power usage
- Long diameter stability
- High machine uptime
- Excellent wire or cable surface

### Diamond Coated Die specifications

Product code	Standard Diameter Range <sup>1)</sup>		Blank Dimensions		Standard Casing Size <sup>2)</sup>	
	(min.)	(max.)	Ø	height	Ø	height
	d <sub>1</sub> [mm]		d <sub>2</sub> [mm]	h <sub>1</sub> [mm]	d <sub>3</sub> [mm]	h <sub>2</sub> [mm]
DC110	10.00	11	30	24	50	45
DC140	11.01	14	35	24	55	45
DC170	14.01	17	40	24	60	45
DC200	17.01	20	45	25	65	45
DC240	20.01	24	50	25	70	45
DC280	24.01	28	55	27	75	47
DC320	28.01	32	60	27	80	47
DC360	32.01	36	65	27	85	47
DC400	36.01	40	70	28	90	48
DC440	40.01	44	75	28	95	48
DC480	44.01	48	80	30	100	50
DC520	48.01	52	85	30	105	50
DC560	52.01	56	90	30	110	50
DC590	56.01	59	95	30	115	50
DC620	59.01	62	100	32	120	52
DC650	62.01	65	105	32	125	52
DC680	65.01	68	110	32	130	52
DC720	68.01	72	115	34	135	54
DC770	72.01	77	120	34	140	54

<sup>1)</sup> Other sizes are available on request

<sup>2)</sup> Other casing sizes available on request

Virtually any diamond coated die size larger than 10 mm (.3937") is available. Please contact **Esteves Group** for a quotation for your wire and cable tooling.

Diamond coated compacting die example below:

20mm (.787") die in a 75x45mm casing

