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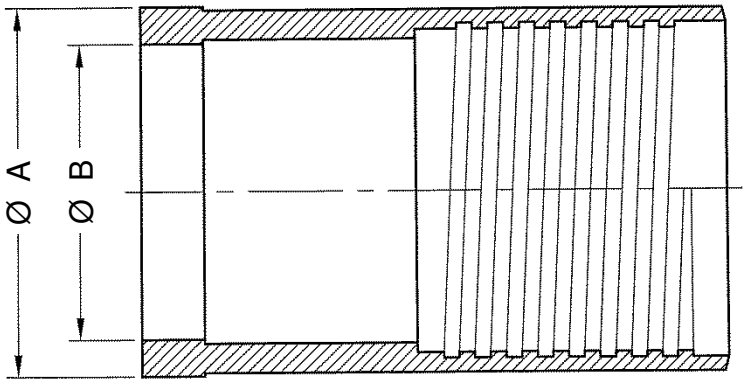
Nominal Set Diameters for Casing/Rod Shoes and Product Availability by Cutting Media Type



Casing Shoes, Rod Shoes, Casing Bits and Rod Bits
with Internal Thread Connections

Notes

1. The dimensions given in this document are nominal. That is, they represent the mid-point dimension onto which a manufacturing tolerance is applied. This tolerance varies by tool size and conforms to established industry standards.

2. Dimatec is capable of manufacturing any casing shoe, rod shoe, casing bit or rod bit listed in the following tables. Product sizes that are not listed or products with non-standard set diameters may be available on request. Note that some types of cutting media may not be available on some sizes of core bits due to the physical dimensional limitations of the casing shoe/rod shoe crown.

   Key to product availability cutting media codes:
   - "D-Series Impregnated" represents: Impregnated synthetic diamond ("D-Series" design)
   - "Super Duty Impregnated" represents: Impregnated synthetic diamond ("Super Duty" design)
   - "Carbide Chip" represents: Tungsten-carbide granular chips
   - "Carbide S/T" represents: Saw-tooth tungsten-carbide elements

Standard Casing Shoes

Casing Shoe Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
RW DCDMA Standard	37.34 mm *1.470 inch*	30.10 mm *1.185 inch*	✓	✓	✗	✗
EW DCDMA Standard	47.63 mm *1.875 inch*	37.97 mm *1.495 inch*	✓	✓	✓	✗
AW DCDMA Standard	59.56 mm *2.345 inch*	48.26 mm *1.900 inch*	✓	✓	✓	✓
BW	75.31 mm	60.25 mm	✓	✓	✓	✓

DCDMA Standard	*2.965 inch*	*2.372 inch*				
NW DCDMA Standard	91.82 mm *3.615 inch*	76.00 mm *2.992 inch*	✓	✓	✓	✓
HW CDDA Standard	117.48 mm *4.625 inch*	99.70 mm *3.925 inch*	✓	✓	✓	✓

Standard Casing Shoes (Continued)

Casing Shoe Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
HW DCDMA Standard	117.48 mm *4.625 inch*	100.97 mm *3.975 inch*	✓	✓	✓	✓
HWT	117.48 mm *4.625 inch*	99.70 mm *3.925 inch*	✓	✓	✓	✓
PW CDDA Standard	143.51 mm *5.650 inch*	123.39 mm *4.858 inch*	✓	✓	✓	✓
PWT	143.51 mm *5.650 inch*	123.39 mm *4.858 inch*	✓	✓	✓	✓
SW DCDMA Standard	172.47 mm *6.790 inch*	150.88 mm *5.940 inch*	✓	✓	✓	✓
UW DCDMA Standard	198.12 mm *7.800 inch*	175.41 mm *6.906 inch*	✓	✓	✓	✓
ZW DCDMA Standard	223.77 mm *8.810 inch*	202.62 mm *7.977 inch*	✓	✓	✓	✓

Metric Casing Shoes

Casing Shoe Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
46mm	46.00 mm *1.811 inch*	37.00 mm *1.457 inch*	✓	✗	✗	✗
56mm	56.00 mm *2.205 inch*	47.00 mm *1.850 inch*	✓	✗	✓	✗
66mm	66.00 mm *2.598 inch*	57.00 mm *2.244 inch*	✓	✗	✓	✓
76mm	76.00 mm *2.992 inch*	67.00 mm *2.638 inch*	✓	✗	✓	✓
86mm	86.00 mm *3.386 inch*	77.00 mm *3.032 inch*	✓	✗	✓	✓
101mm	101.00 mm *3.976 inch*	87.68 mm *3.452 inch*	✓	✓	✓	✓
116mm	116.00 mm *4.567 inch*	103.00 mm *4.055 inch*	✓	✓	✓	✓
131mm	131.00 mm *5.157 inch*	119.20 mm *4.693 inch*	✓	✓	✓	✓
146mm	146.00 mm *5.748 inch*	133.00 mm *5.236 inch*	✓	✓	✓	✓

Standard Casing Bits

For use with DCDMA and CDDA standard casing

Casing Bit Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T

BW	75.31 mm *2.965 inch*	56.26 mm *2.215 inch*	✓	✓	✓	✓
NW	91.82 mm *3.615 inch*	72.14 mm *2.840 inch*	✓	✓	✓	✓
HW	117.48 mm *4.625 inch*	95.94 mm *3.777 inch*	✓	✓	✓	✓

Wide-Kerf Casing Bits

For use with DCDMA and CDDA standard casing

Casing Bit Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
BW (NWL) *See Note A below*	75.31 mm *2.965 inch*	47.62 mm *1.875 inch*	✓	✓	✓	✓
NW (HWL) *See Note B below*	95.55 mm *3.762 inch*	63.50 mm *2.500 inch*	✓	✓	✓	✓
HW (PWL) *See Note C below*	122.05 mm *4.805 inch*	84.96 mm *3.345 inch*	✓	✓	✓	✓
HWT (PWL) *See Note D below*	122.05 mm *4.805 inch*	84.96 mm *3.345 inch*	✓	✓	✓	✓

Note A: The BW(NWL) Casing Bit is supplied with a BW Casing Box thread connection.
Note B: The NW(HWL) Casing Bit is supplied with an NW Casing Box thread connection.
Note C: The HW(PWL) Casing Bit is supplied with an HW Casing Box thread connection.
Note D: The HWT(PWL) Casing Bit is supplied with an HWT Casing Box thread connection.

Rod Shoes

For use with wireline drill rods

Rod Shoe Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
BWL	59.56 mm *2.345 inch*	45.21 mm *1.780 inch*	✓	✓	✓	✓
BT	59.56 mm *2.345 inch*	45.21 mm *1.780 inch*	✓	✓	✓	✓
NWL	75.31 mm *2.965 inch*	60.25 mm *2.372 inch*	✓	✓	✓	✓
NT	75.31 mm *2.965 inch*	60.25 mm *2.372 inch*	✓	✓	✓	✓
HWL	91.82 mm *3.615 inch*	76.00 mm *2.992 inch*	✓	✓	✓	✓
HT	91.82 mm *3.615 inch*	76.00 mm *2.992 inch*	✓	✓	✓	✓
PWL	118.82 mm *4.678 inch*	101.22 mm *3.985 inch*	✓	✓	✓	✓

British Standard BS879 Water Well Casing Shoes

Casing Shoe Sizes	**Nominal Set Diameters** (See Note 1)		**Product Availability** (See Note 2)			
	Ø A	**Ø B**	D-Series Impregnated	Super Duty Impregnated	Carbide Chip	Carbide S/T
4 Inch	117.48 mm *4.625 inch*	96.93 mm *3.816 inch*	✓	✓	✓	✓
5 Inch	143.51 mm *5.650 inch*	122.50 mm *4.823 inch*	✓	✓	✓	✓

6 Inch	172.47 mm *6.790 inch*	147.96 mm *5.825 inch*	✓	✓	✓	✓
8 Inch	224.16 mm *8.825 inch*	198.76 mm *7.825 inch*	✓	✓	✓	✓
10 Inch	277.62 mm *10.930 inch*	249.30 mm *9.815 inch*	✓	✓	✓	✓

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