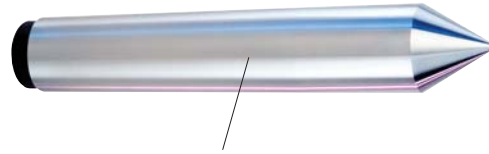


# DEAD CENTERS

- Dead centers are typically used for **grinding** and are also sometimes used in **high-precision turning** applications.
- Royal manufactures a wide range of standard dead centers to suit most applications, including: full, half, carbide-tipped, and extended-point models.
- All solid dead centers are made from ball bearing steel and are hardened to Rc 61-63 for wear resistance and durability.
- On carbide-tipped models, the carbide blank is brazed into a close-tolerance socket for maximum strength and rigidity.
- All Royal dead centers are ground to an angle of  $60^\circ \pm 15'$  and guaranteed to  $\pm 0.00005''$  TIR.
- Also available in Jarno and Brown & Sharpe tapers



**Type 1**  
Standard Dead Center  
add "1" to catalog number below.

Ball bearing steel hardened and ground to Rc 61-63 for long life.



**Type 2**  
Standard Dead Center with carbide tip  
add "2" to catalog number below.

Carbide blank is brazed into a close-tolerance socket for maximum strength and rigidity.



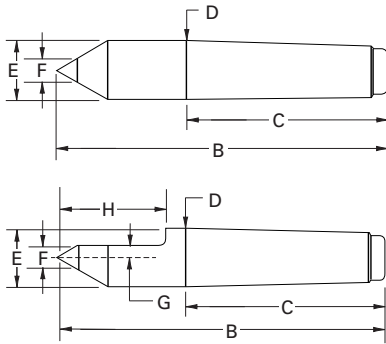
**Type 3**  
1/2 Dead Center  
add "3" to catalog number below.

Half centers are relieved for grinding wheel clearance.



**Type 4**  
1/2 Dead Center with carbide tip  
add "4" to catalog number below.

A safety groove shows the maximum allowable regrind range for carbide-tipped models.

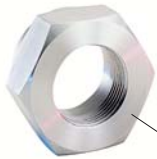


## Royal Dead Centers

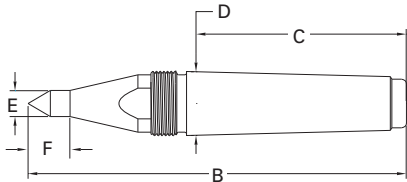
Example: A 1MT dead center with a carbide tip is Catalog No. 11002.

TAPER A	B	C	D	E	F	G	H	CATALOG NO.	TYPE 1	TYPE 2	PRICE	TYPE 3	TYPE 4
1 MT	3.31	2.12	.475	0.475	0.25	0.13	1.00	1100-	<b>\$55</b>	<b>\$69</b>		<b>\$69</b>	<b>\$81</b>
2 MT	4.19	2.56	.700	0.700	0.38	0.19	1.38	1101-	<b>61</b>	<b>79</b>		<b>79</b>	<b>93</b>
3 MT	5.25	3.19	.938	0.938	0.50	0.22	1.69	1102-	<b>93</b>	<b>107</b>		<b>107</b>	<b>121</b>
4 MT	6.75	4.06	1.231	1.231	0.50	0.25	2.25	1103-	<b>133</b>	<b>142</b>		<b>142</b>	<b>155</b>
5 MT	8.50	5.19	1.748	1.748	0.63	0.38	2.75	1104-	<b>199</b>	<b>219</b>		<b>219</b>	<b>231</b>
6 MT	11.50	7.25	2.494	2.494	0.88	0.50	3.50	1105-	<b>348</b>	<b>416</b>		<b>416</b>	<b>563</b>
7 MT	15.00	10.00	3.270	3.270	1.00	0.75	4.00	1106-	<b>658</b>	<b>698</b>		<b>698</b>	<b>742</b>

- Royal threaded dead centers are designed for use in CNC turning centers with **live tailstocks**. They may also be used for precision grinding.
- Extraction nut and wrench flats allow for easy removal from spindle.
- Available in both steel and carbide-tipped models.



Extraction nut allows for easy removal from spindle. Order separately.



4140 steel hardened and ground to Rc 61-63 for long life.

Wrench flats for easy removal.



Extended length provides great tool clearance. Taper maintains strength and rigidity.

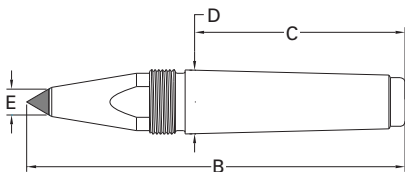
Points are ground to an angle of  $60^\circ \pm 15'$  and guaranteed to  $\pm 0.00005''$  TIR.



Carbide blank is brazed into a close-tolerance socket for maximum strength and rigidity.

## Royal CNC Threaded Dead Centers

TAPER A	B	C	D	E	F	THREAD	DEAD CENTER		EXTRACTION NUT	
							CATALOG NO.	PRICE	CATALOG NO.	PRICE
3 MT	5.94	3.19	0.938	0.38	0.63	1"-14	11530	<b>\$134</b>	11550	<b>\$32</b>
4 MT	7.31	4.06	1.231	0.50	0.81	1 1/4"-14	11531	<b>168</b>	11551	<b>38</b>
5 MT	8.44	5.19	1.748	0.50	0.81	1 3/4"-12	11532	<b>232</b>	11552	<b>42</b>



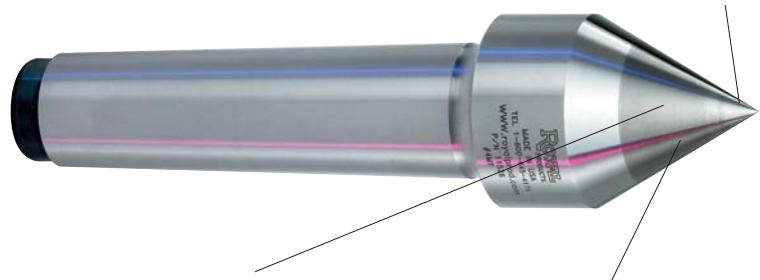
## Royal CNC Threaded Dead Centers with Carbide-Tipped Point

TAPER A	B	C	D	E	THREAD	DEAD CENTER		EXTRACTION NUT	
						CATALOG NO.	PRICE	CATALOG NO.	PRICE
3 MT	5.94	3.19	0.938	0.38	1"-14	11540	<b>\$183</b>	11550	<b>\$32</b>
4 MT	7.31	4.06	1.231	0.50	1 1/4"-14	11541	<b>219</b>	11551	<b>38</b>
5 MT	8.44	5.19	1.748	0.50	1 3/4"-12	11542	<b>282</b>	11552	<b>42</b>

# OVERSIZED CARBIDE POINT DEAD CENTERS

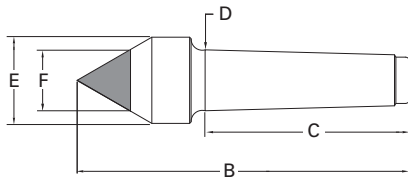
- Excellent for grinding and high precision turning applications.
- Oversized carbide point covers a wider range of center holes and provides great wear resistance.
- Also available in Jarno and Brown & Sharpe tapers.

Oversized carbide point covers a wider range of center holes and provides great wear resistance.



The large carbide tip is brazed into a close-tolerance socket for maximum strength and rigidity.

Point is ground to an angle of  $60^{\circ} \begin{smallmatrix} +15 \\ -0 \end{smallmatrix}$  and guaranteed to  $\pm 0.00005''$  TIR.



## Royal Oversized Carbide Point Dead Centers

TAPER A	B	C	D	E	CARBIDE DIAMETER F	CATALOG NO.	PRICE
2 MT	4.94	2.56	0.700	1.25	1.00	11524	<b>\$147</b>
3 MT	5.57	3.19	0.938	1.25	1.00	11525	<b>174</b>
4 MT	6.75	4.06	1.231	1.75	1.25	11526	<b>236</b>
5 MT	8.50	5.19	1.748	1.75	1.25	11527	<b>334</b>