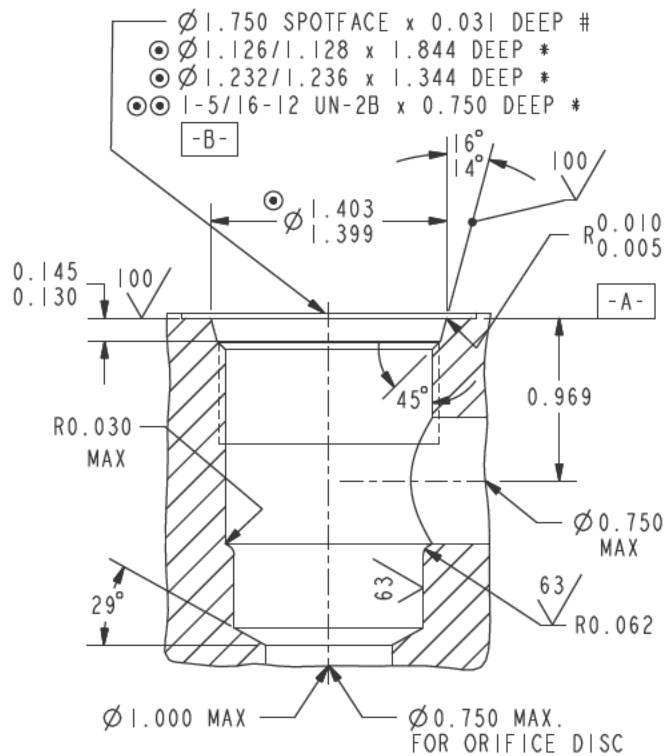


Series 16 Cartridge Cavities

VC16-2



NOTES:

- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

(a) -

	0.001	A
↗	0.002	B

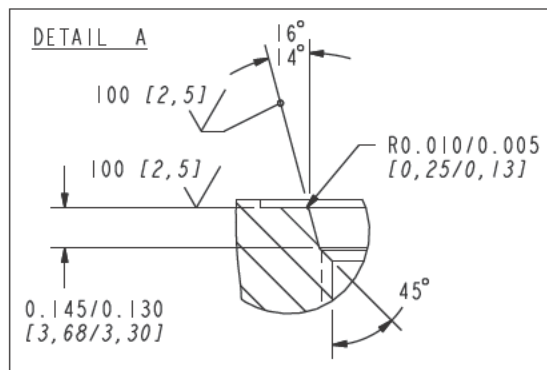
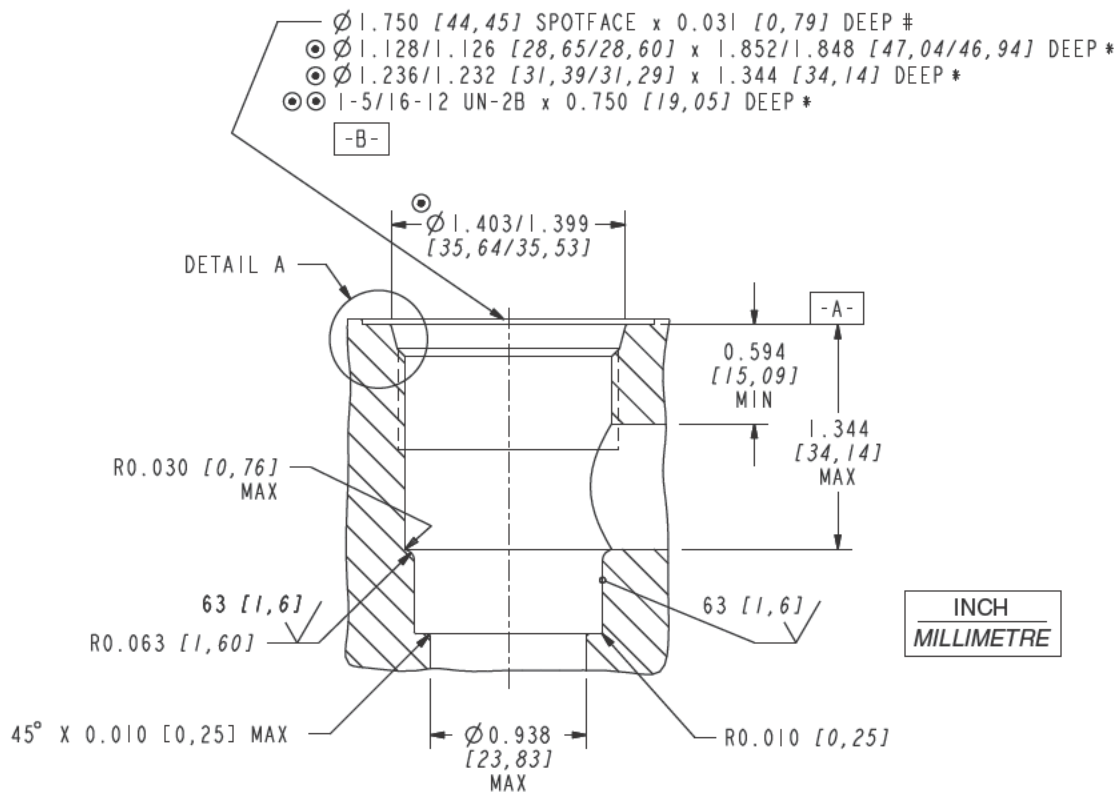
 (b) -

	0.001	A
○	0.0009	(PITCH DIA)

- * - DEPTHS ARE FROM DATUM -A- .
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 .
 - UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

Series 16 Cartridge Cavities

HVC16-2



NOTES:

⊙ -	<table> <tr> <td></td><td>0.001 [0,025]</td><td>A</td></tr> <tr> <td></td><td>0.002 [0,05]</td><td>B</td></tr> </table>		0.001 [0,025]	A		0.002 [0,05]	B
	0.001 [0,025]	A					
	0.002 [0,05]	B					
⊙ -	<table> <tr> <td></td><td>0.001 [0,025]</td><td>A</td></tr> <tr> <td></td><td>0.0009 [0,023]</td><td>(PITCH DIA)</td></tr> </table>		0.001 [0,025]	A		0.0009 [0,023]	(PITCH DIA)
	0.001 [0,025]	A					
	0.0009 [0,023]	(PITCH DIA)					

* - DEPTHS ARE FROM DATUM -A- .

- UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.

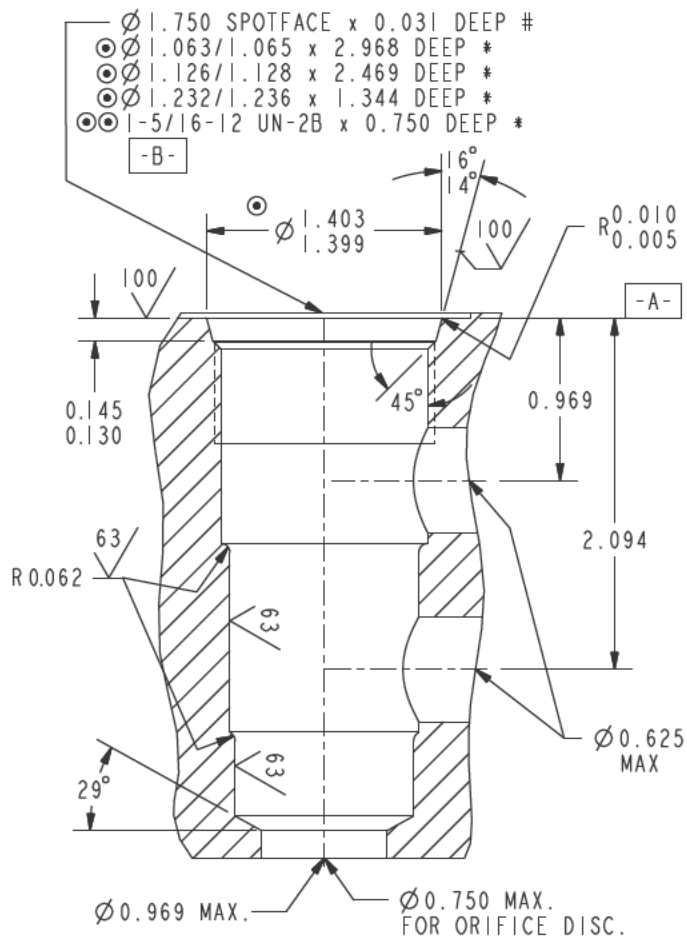
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].

- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].

Series 16 Cartridge Cavities

VC16-3



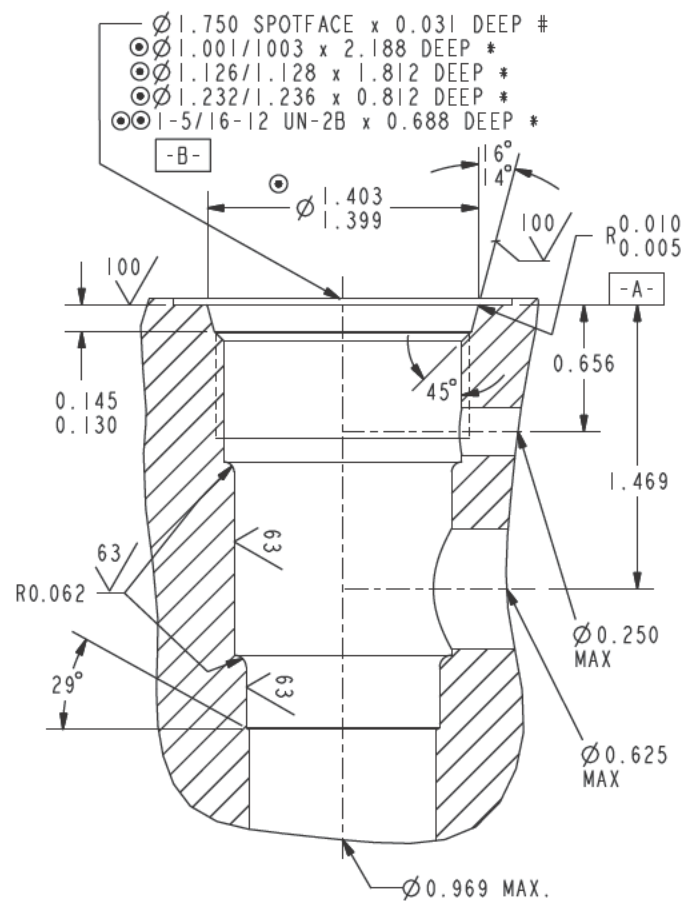
NOTES:

- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

⊙ -	<table><tr><td></td><td>0.001</td><td>A</td></tr><tr><td></td><td>0.002</td><td>B</td></tr></table>		0.001	A		0.002	B	⊙ ⊙ -	<table><tr><td></td><td>0.001</td><td>A</td></tr><tr><td></td><td>0.0009</td><td>(PITCH DIA)</td></tr></table>		0.001	A		0.0009	(PITCH DIA)
	0.001	A													
	0.002	B													
	0.001	A													
	0.0009	(PITCH DIA)													

- * - DEPTHS ARE FROM DATUM -A-.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 .
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

VC16-S3



NOTES:

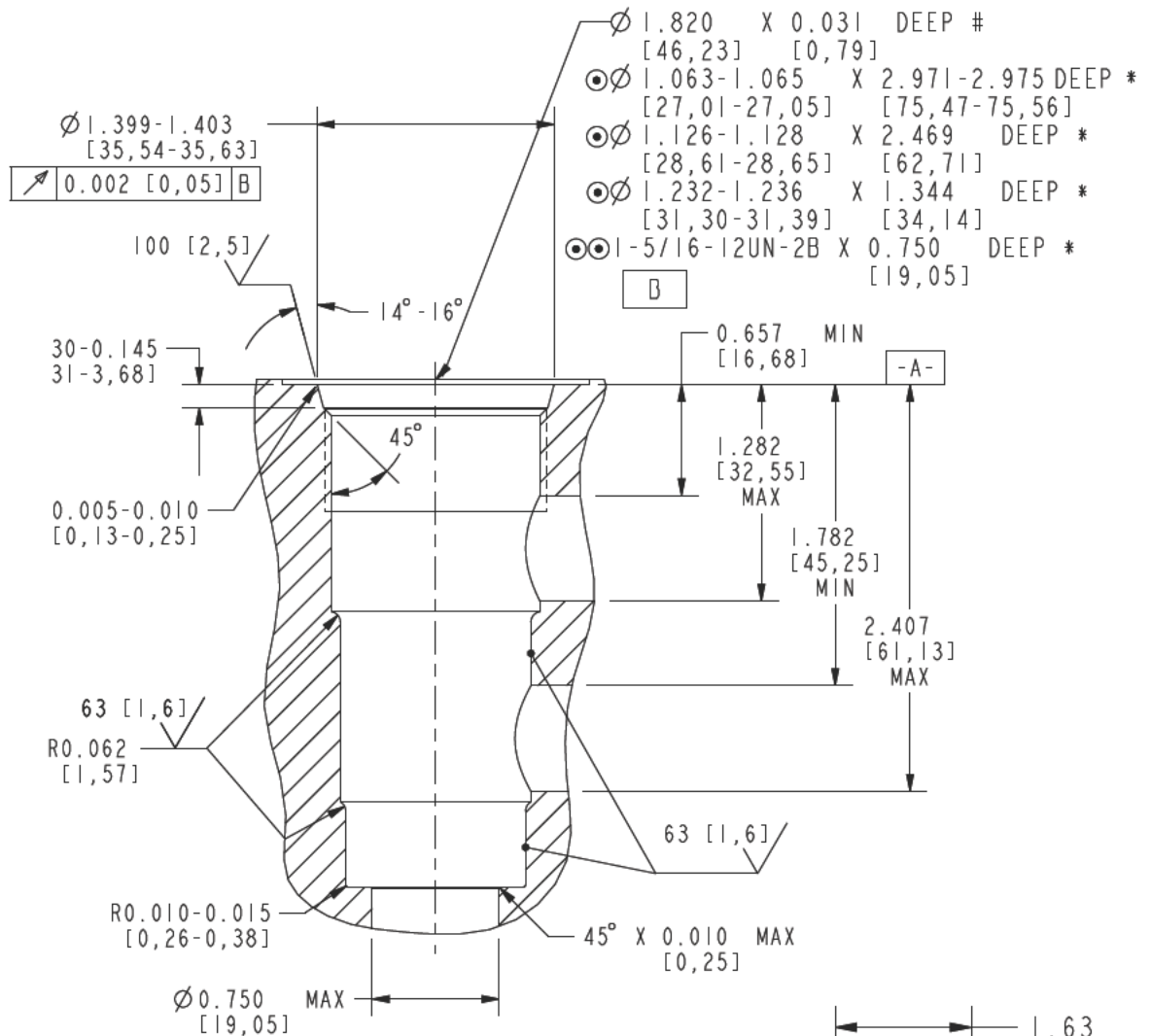
- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

⊙ -	<table><tr><td></td><td>0.001</td><td>A</td></tr><tr><td></td><td>0.002</td><td>B</td></tr></table>		0.001	A		0.002	B	⊙ ⊙ -	<table><tr><td></td><td>0.001</td><td>A</td></tr><tr><td></td><td>0.0009</td><td>(PITCH DIA)</td></tr></table>		0.001	A		0.0009	(PITCH DIA)
	0.001	A													
	0.002	B													
	0.001	A													
	0.0009	(PITCH DIA)													

- * - DEPTHS ARE FROM DATUM -A-.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 .
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

Series 16 Cartridge Cavities

HVC16-3



CAVITY TOOLS:

7540990 - ROUGH
7541000 - FINISH WITH TUNGSTEN INSERTS
7541005 - FINISH

NOTES:

- * -

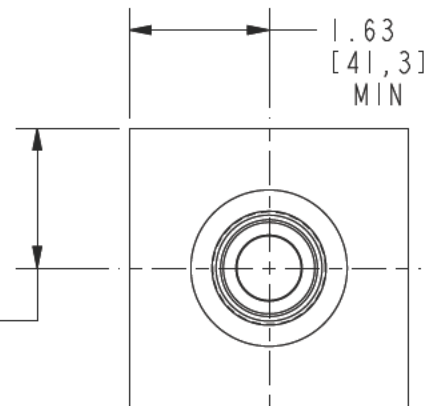
0.001	[0,025]	A
0.002	[0,05]	B

 ** -

0.001	[0,025]	A
0.0009	[0,023]	(PITCH DIA)

- * - DEPTHS ARE FROM DATUM [-A-]
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].

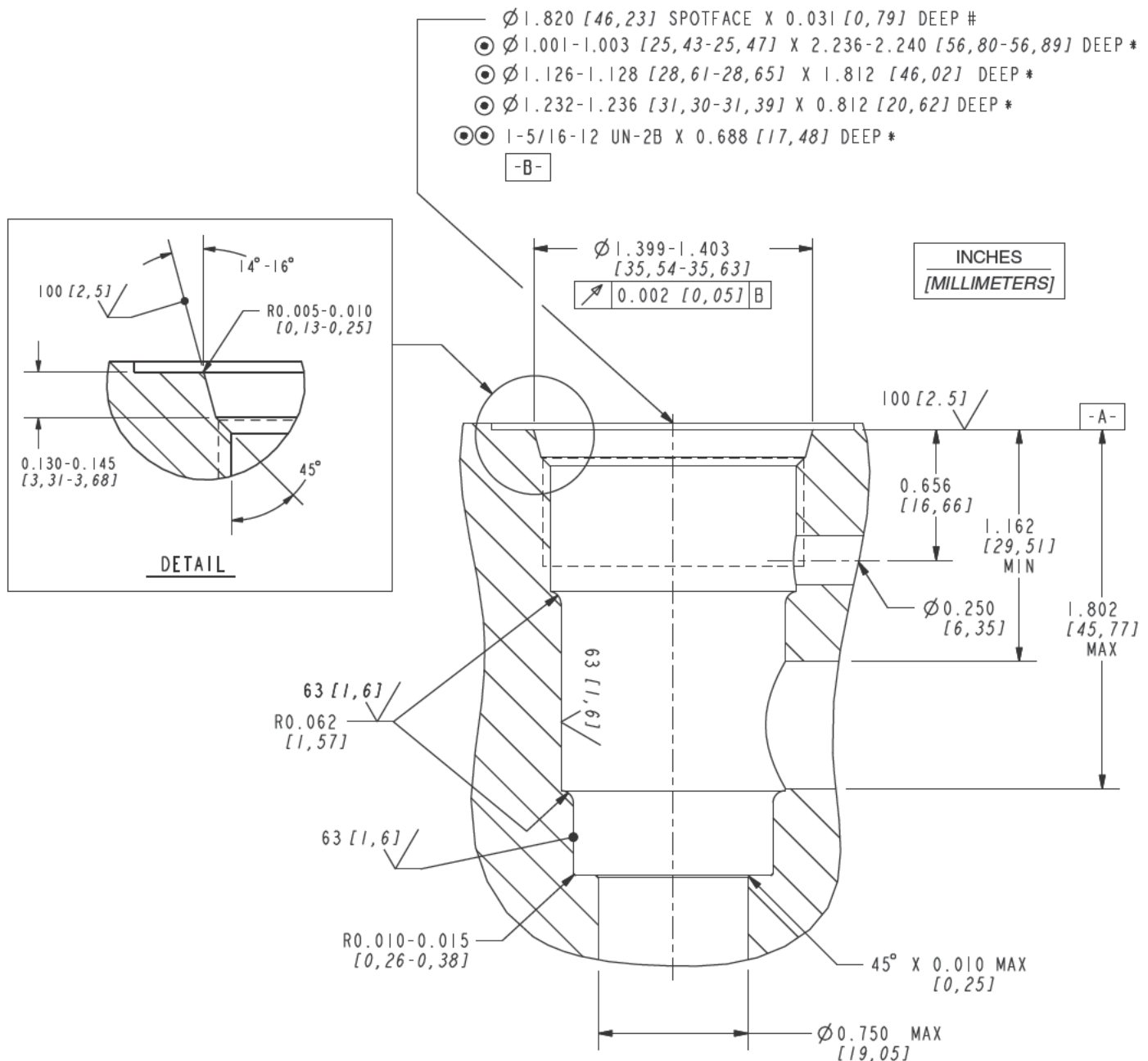
1.63
[41,3]
MIN



VALVE HOUSING DETAIL
SCALE 1:2

Series 16 Cartridge Cavities

HVC16-S3



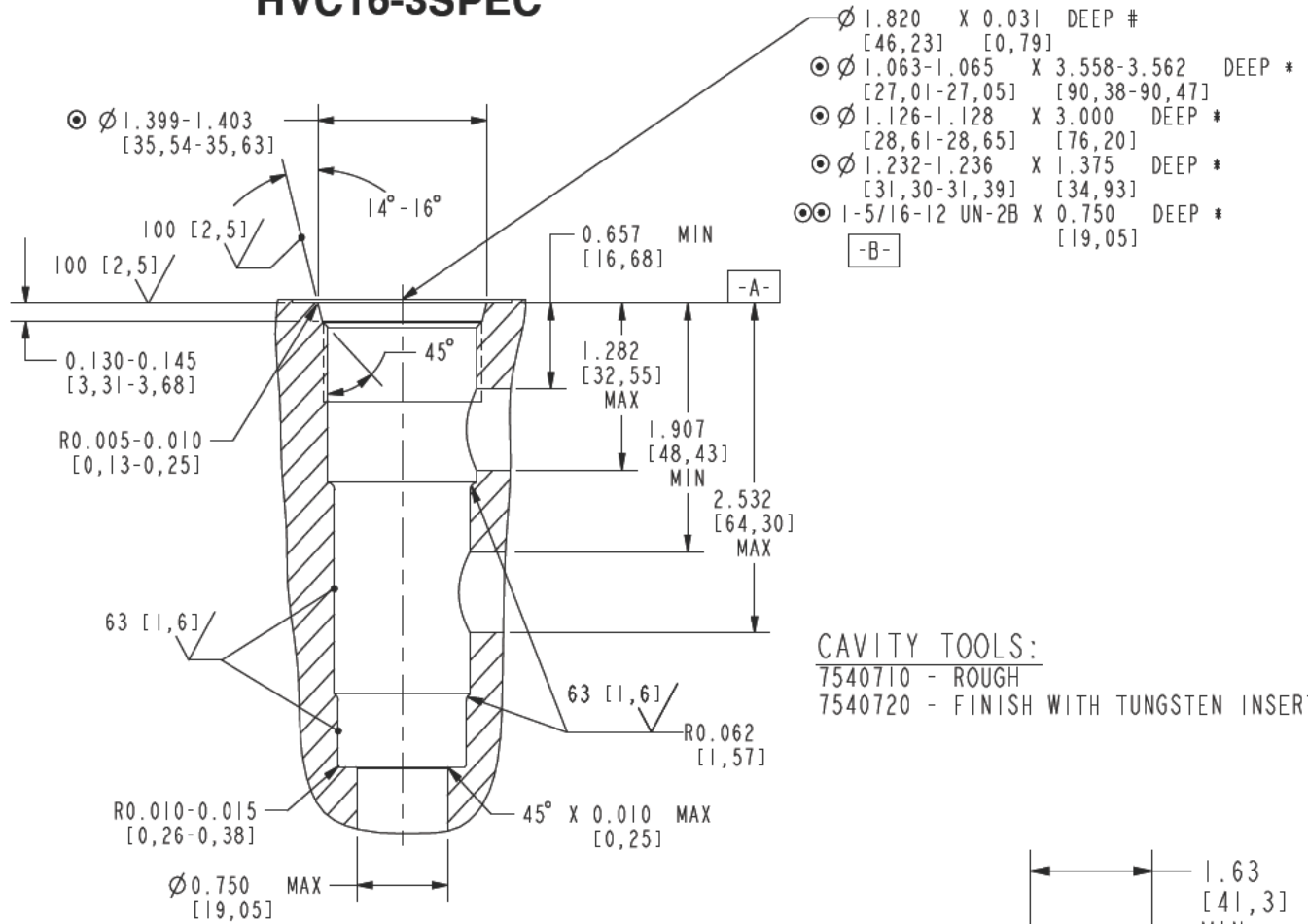
NOTES:

⊙ -	<table><tr><td></td><td>0.001 [0,025]</td><td>A</td></tr><tr><td></td><td>0.002 [0,05]</td><td>B</td></tr></table>		0.001 [0,025]	A		0.002 [0,05]	B	⊙ ⊙ -	<table><tr><td></td><td>0.001 [0,025]</td><td>A</td></tr><tr><td></td><td>0.0009 [0,023]</td><td>(PITCH DIA)</td></tr></table>		0.001 [0,025]	A		0.0009 [0,023]	(PITCH DIA)
	0.001 [0,025]	A													
	0.002 [0,05]	B													
	0.001 [0,025]	A													
	0.0009 [0,023]	(PITCH DIA)													

- * - DEPTHS ARE FROM DATUM **-A-**.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].

Series 16 Cartridge Cavities

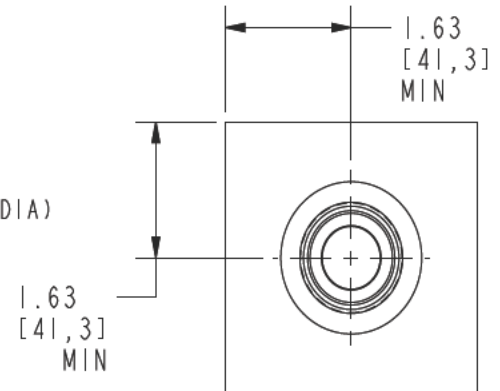
HVC16-3SPEC



NOTES:

$\odot$ -	<table border="1"><tr><td>$\perp$</td><td>0.001</td><td>[0,025]</td><td>A</td></tr><tr><td>∇</td><td>0.002</td><td>[0,05]</td><td>B</td></tr></table>	$\perp$	0.001	[0,025]	A	∇	0.002	[0,05]	B	$\odot\odot$ -	<table border="1"><tr><td>$\perp$</td><td>0.001</td><td>[0,025]</td><td>A</td></tr><tr><td>$\bigcirc$</td><td>0.0009</td><td>[0,023]</td><td>(PITCH DIA)</td></tr></table>	$\perp$	0.001	[0,025]	A	$\bigcirc$	0.0009	[0,023]	(PITCH DIA)
$\perp$	0.001	[0,025]	A																
∇	0.002	[0,05]	B																
$\perp$	0.001	[0,025]	A																
$\bigcirc$	0.0009	[0,023]	(PITCH DIA)																

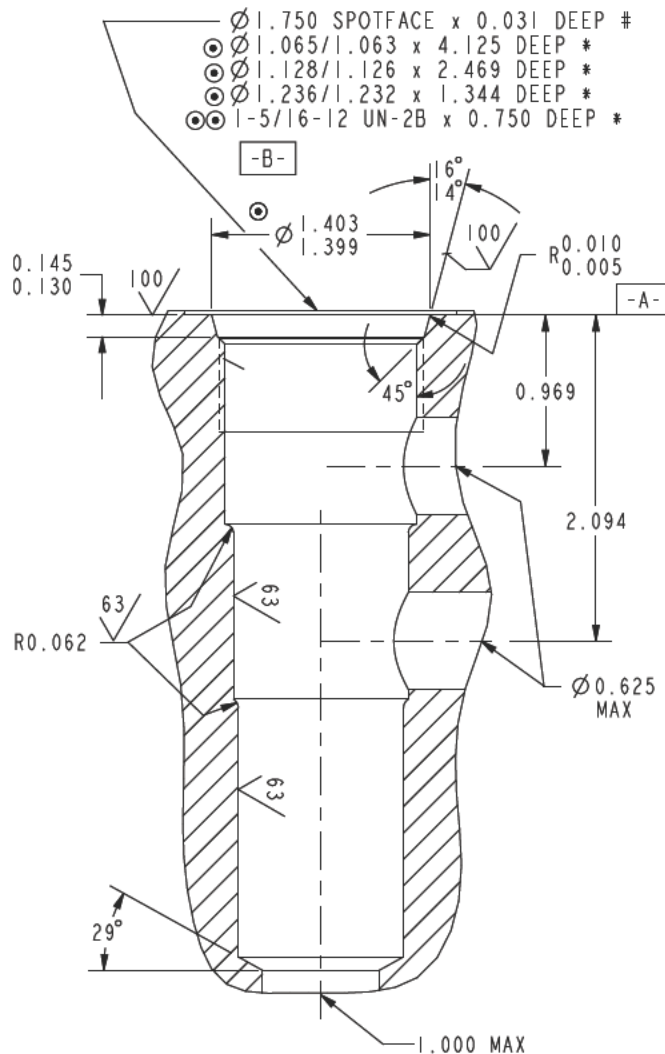
- * - DEPTHS ARE FROM DATUM -A-.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].



VALVE HOUSING DETAIL
SCALE 1:2

Series 16 Cartridge Cavities

VC16-3SPCL



NOTES:

- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

◎ -		0.001	A
		0.002	B
◎ ◎ -		0.001	A
		0.0009	(PITCH DIA)

* - DEPTHS ARE FROM DATUM -A- .

- UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.

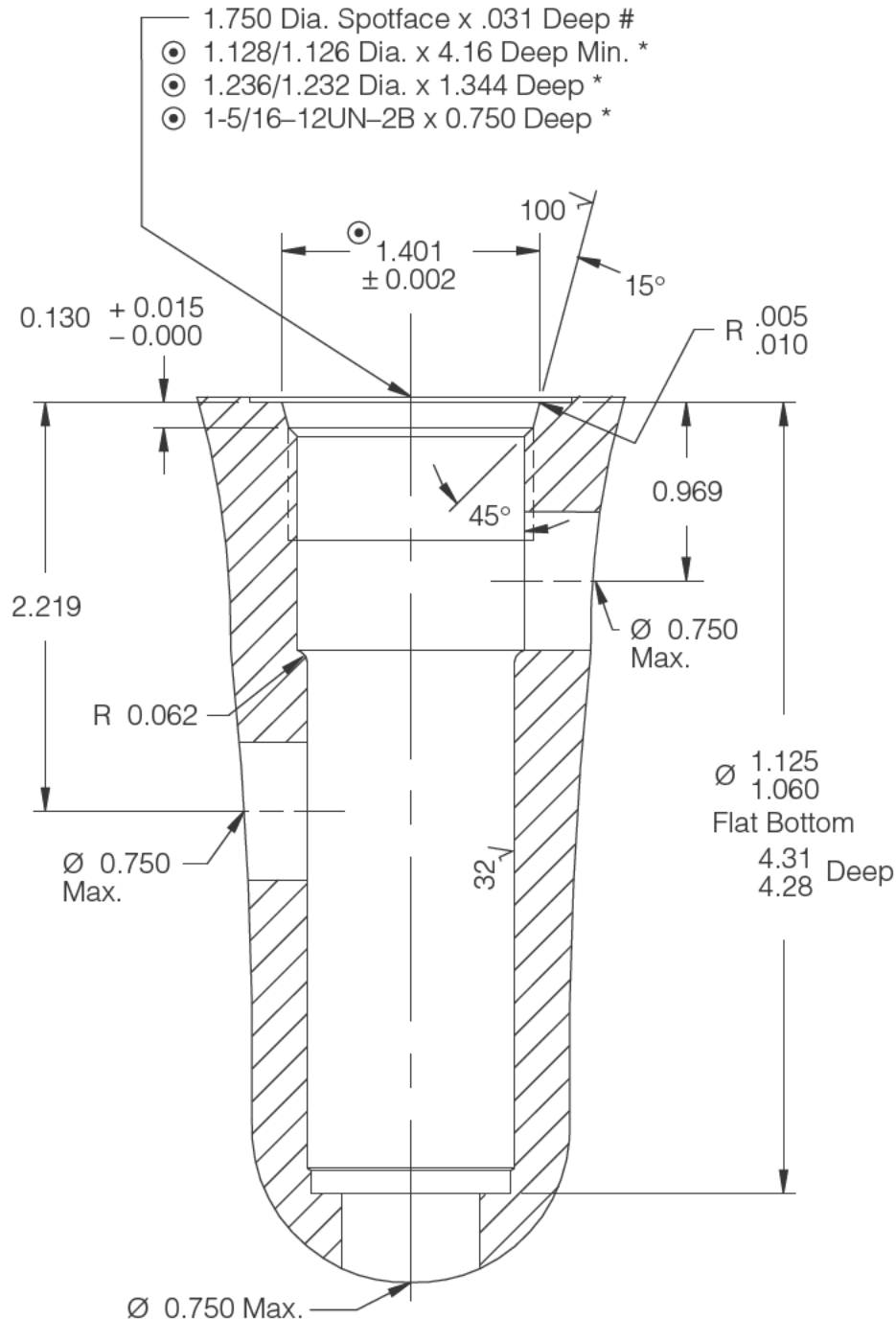
- UNSPECIFIED TOLERANCES ARE ± 0.005 .

- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

- CAVITY DIMENSIONS ARE EQUIVALENT TO VC16-3 EXCEPT FOR $\varnothing 1.065/1.063$ X 4.125 HOLE. VC16-3 TOOLING CAN BE USED WITH LONGER PREDRILL AND MATCHING DIAMETER.

Series 16 Cartridge Cavities

VC16-PCV



The above features (except for pilot drill & cross drills) can be machined simultaneously with a form tool.

⊙ — These diameters to be concentric within 0.002 T.I.R. and perpendicular to spotface within 0.001 T.I.R.

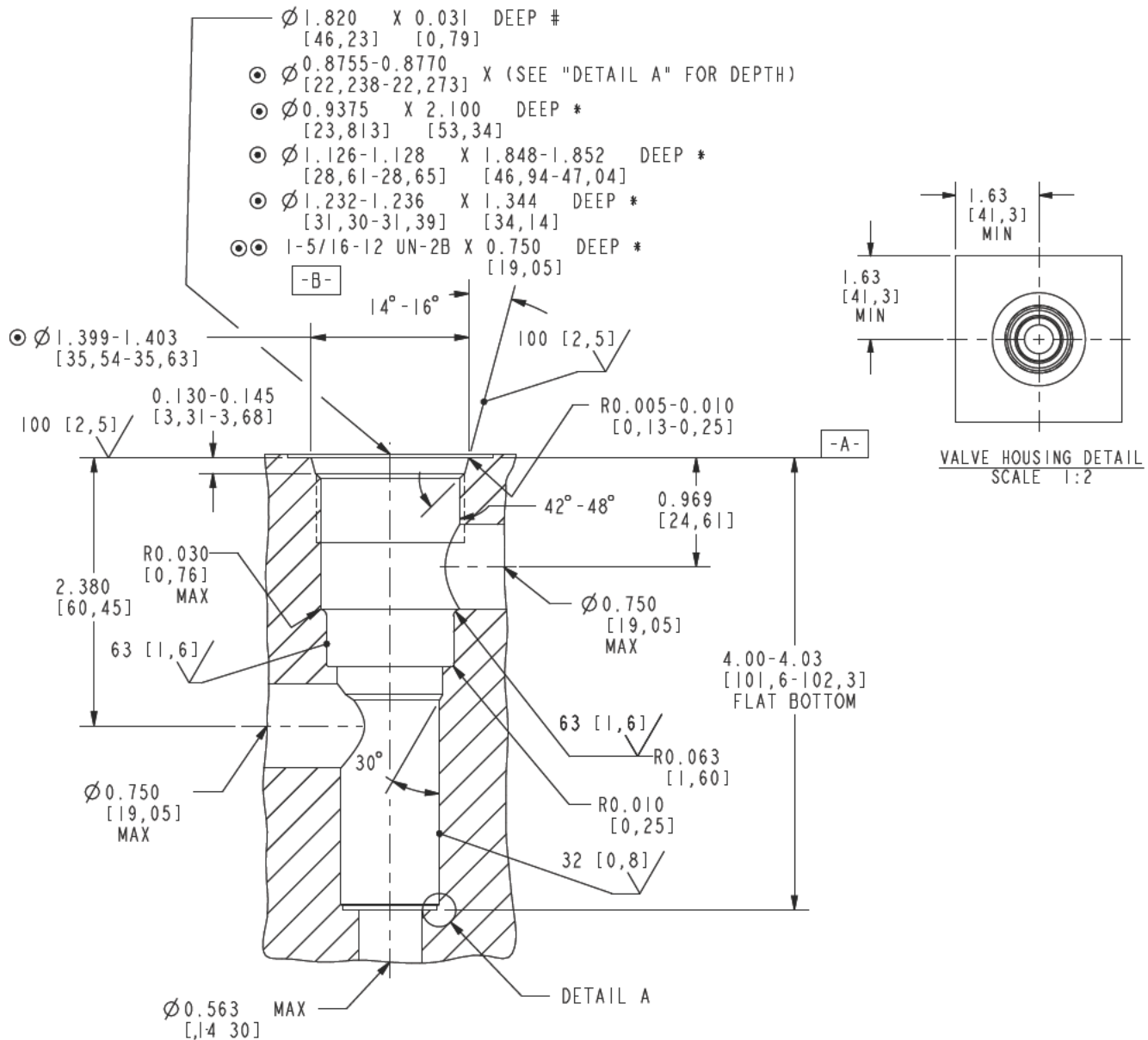
* — Depths are from spotface.

— Unless otherwise specified on machining drawing

Unspecified tolerances are ± 0.005 .

Series 16 Cartridge Cavities

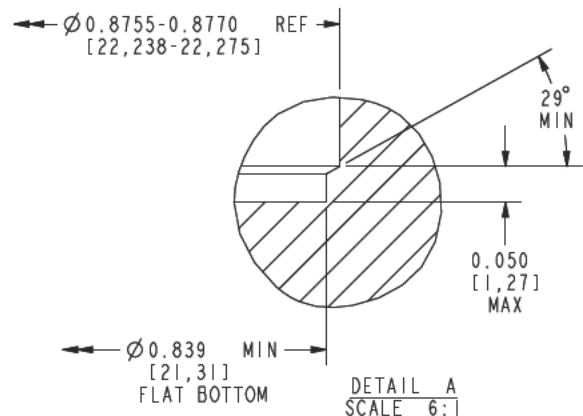
HVC16-PCV



NOTES:

◎		0.001	A
◎		0.002	B
◎◎		0.001	A
◎◎		0.0009	(PITCH DIA)

- * DEPTHS ARE FROM DATUM -A- .
- # UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNLESS OTHERWISE SPECIFIED TOLERANCES ARE ± 0.005 .



Ø 1.750 SPOTFACE x 0.031 DEEP #
 Ø 1.063/1.065 x 4.310 DEEP *
 Ø 1.096/1.098 x 2.730 DEEP *
 Ø 1.126/1.128 x 2.065 DEEP *
 Ø 1.232/1.236 x 1.344 DEEP *
 1-5/16-12 UN-2B x 0.750 DEEP *



- (a) -

	0.001	A
↗	0.002	B

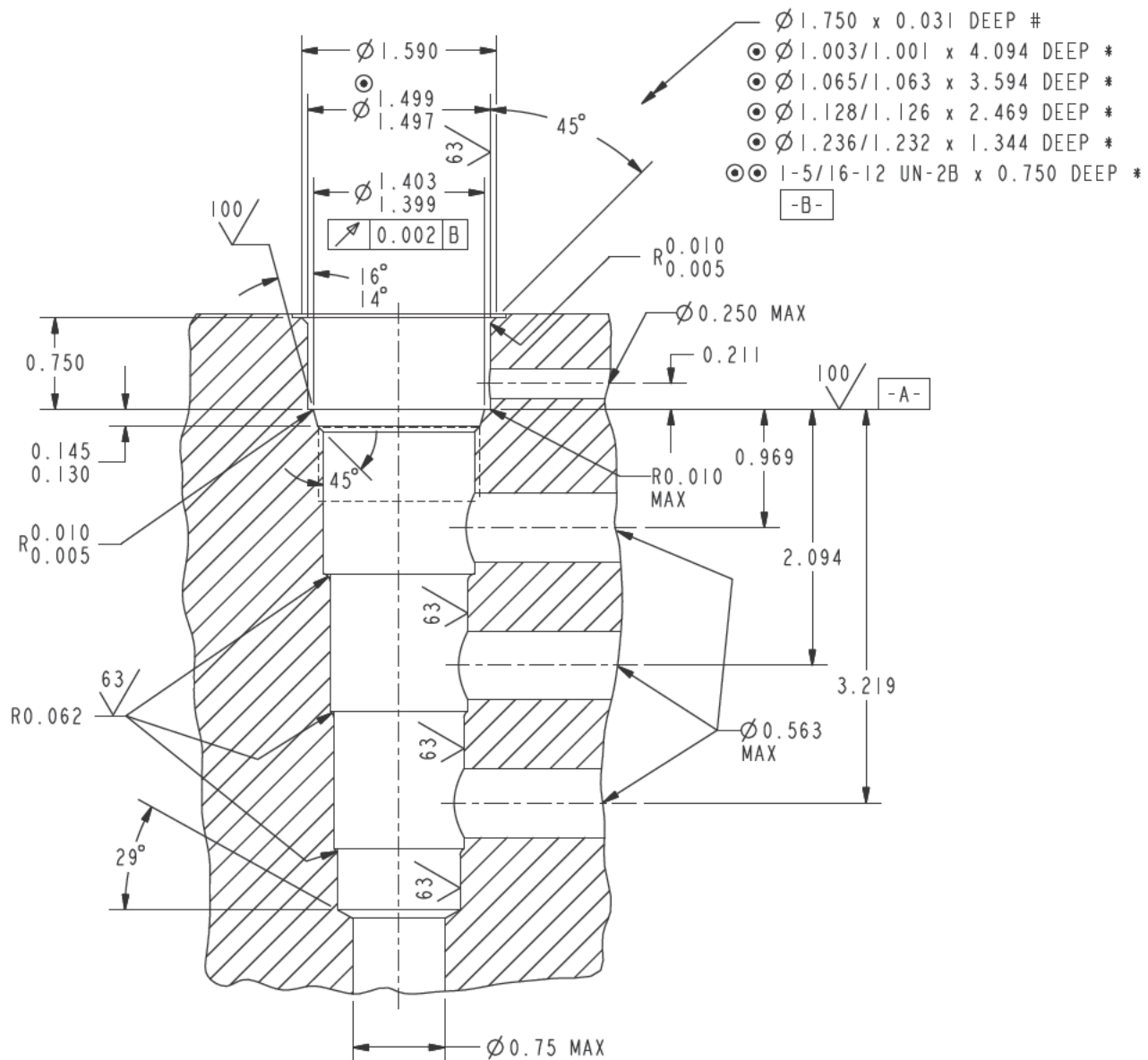
 (b) -

	0.001	A
○	0.0009	(PITCH DIA)

-
- HYDRAFORCE.com

Series 16 Cartridge Cavities

VC16-S5



NOTES: - THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

◎ -

0.001	A
0.002	B

 ◎◎ -

0.001	A
0.0009	(PITCH DIA)

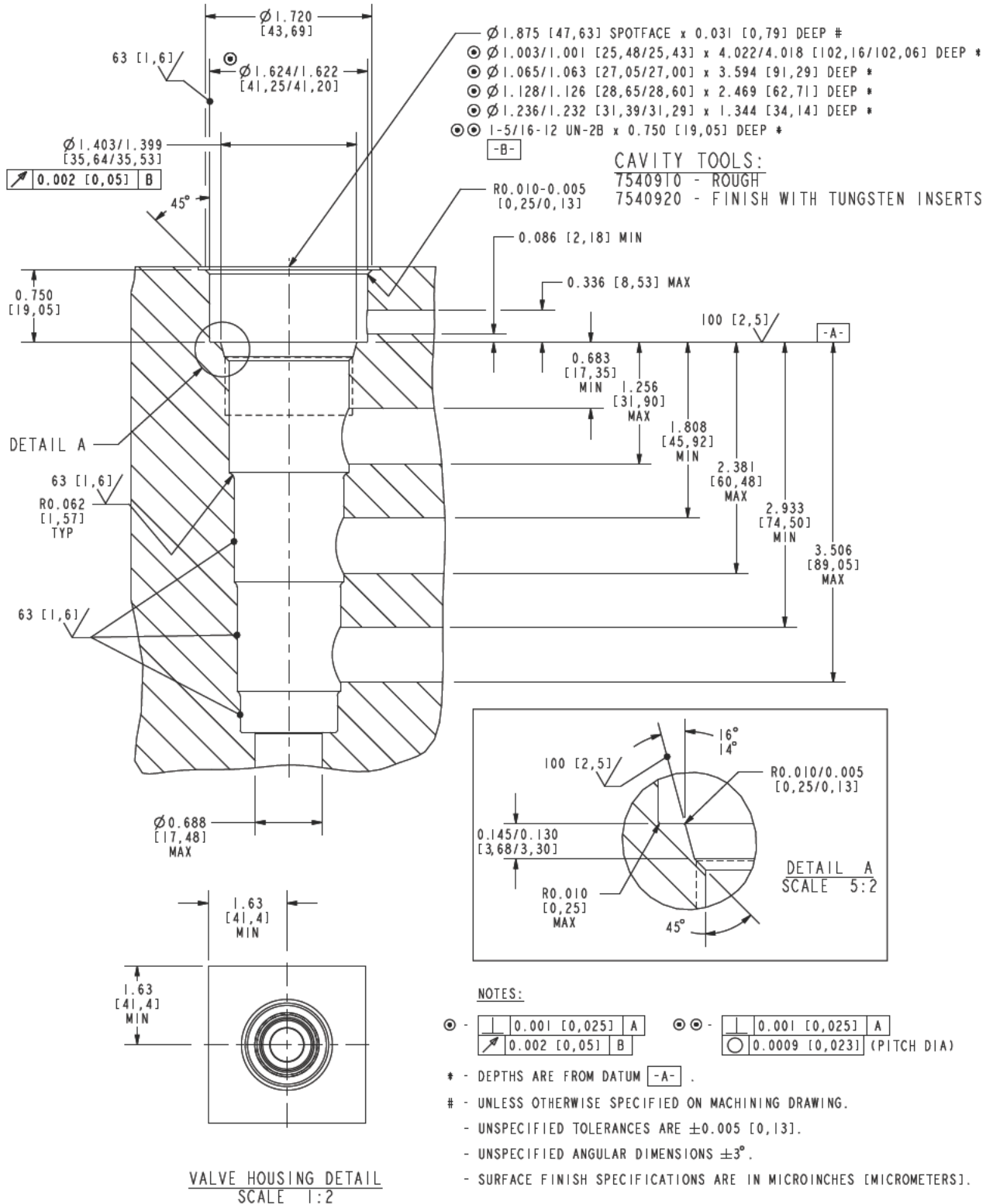
* - DEPTHS ARE FROM DATUM -A-.

- UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.

- UNSPECIFIED TOLERANCES ARE ± 0.005 . - UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.

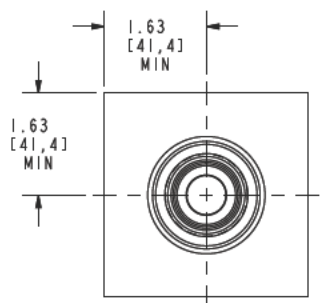
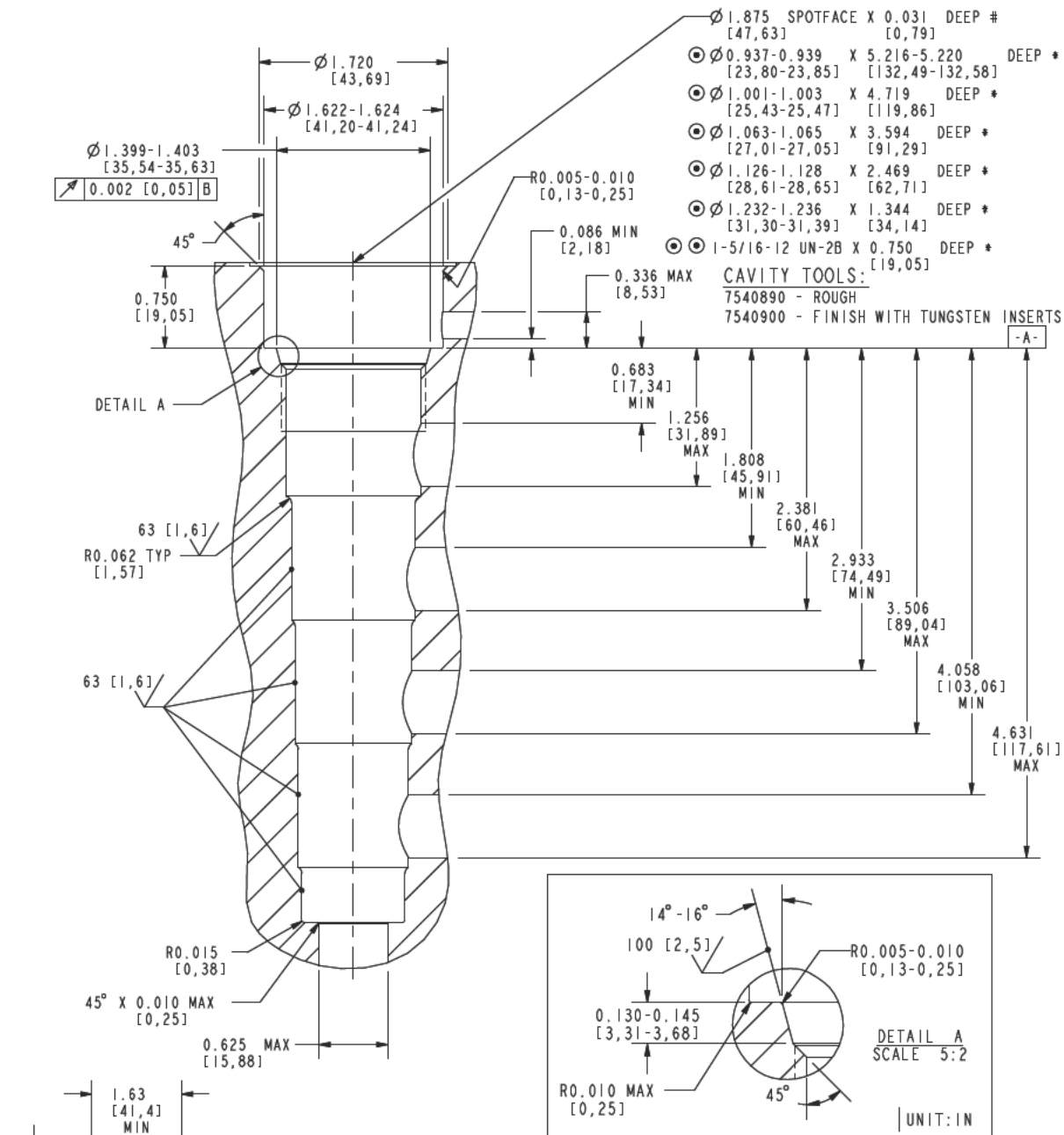
Series 16 Cartridge Cavities

HVC16-S5



Series 16 Cartridge Cavities

HVC16-S6



NOTES:

- ① - 0.001 [0,025] A
- ② - 0.001 [0,025] A
- ③ - 0.002 [0,05] B
- ④ - 0.0009 [0,023] (PITCH DIA)

- * - DEPTHS ARE FROM DATUM -A-.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].