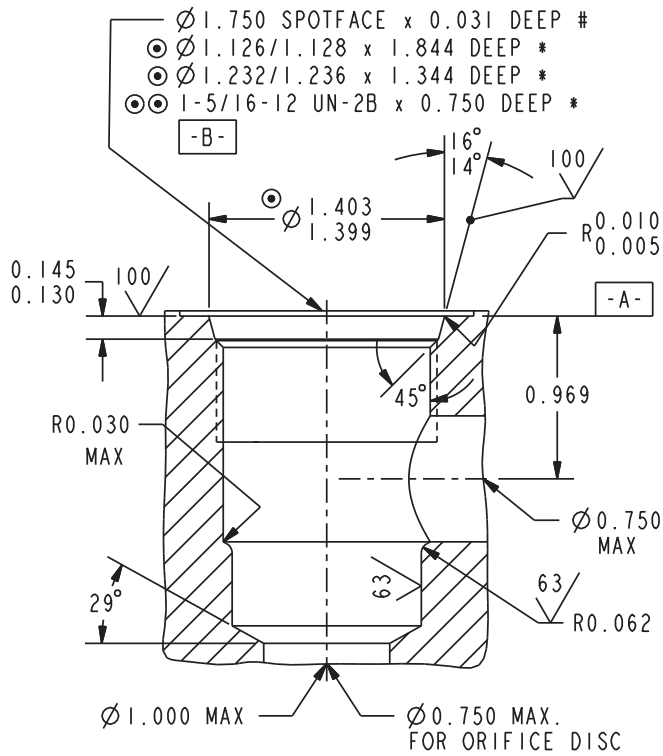


Series 16 Cartridge Cavities

VC16-2



NOTES:

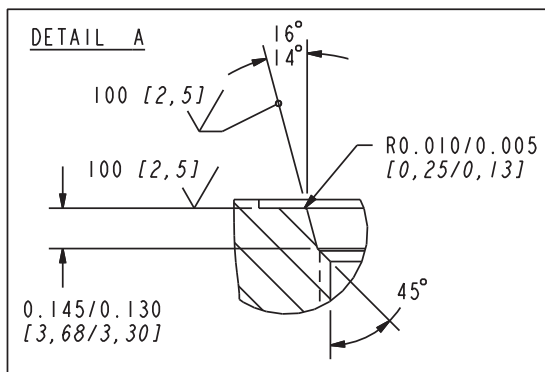
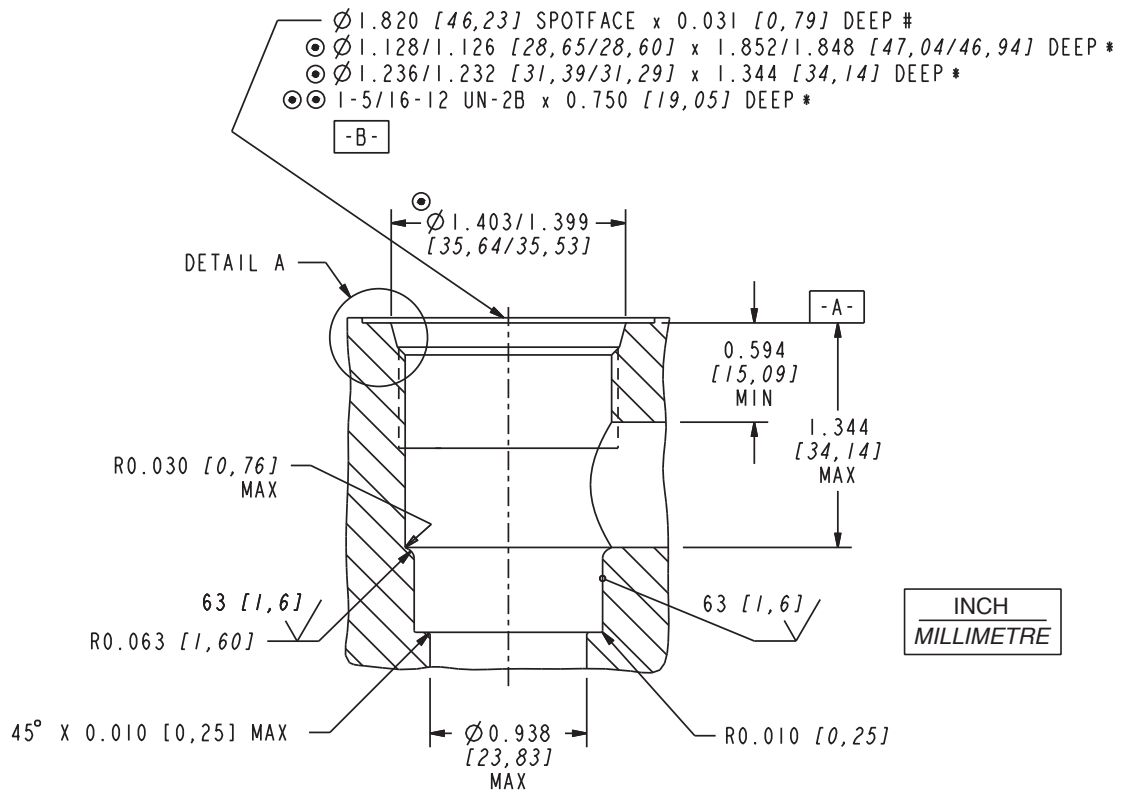
- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

⊙	⊥	0.001	A	⊙ ⊙	⊥	0.001	A
		↗	0.002			B	○

- * - 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:

- \odot -

	0.001 [0,025]	A
↗	0.002 [0,05]	B

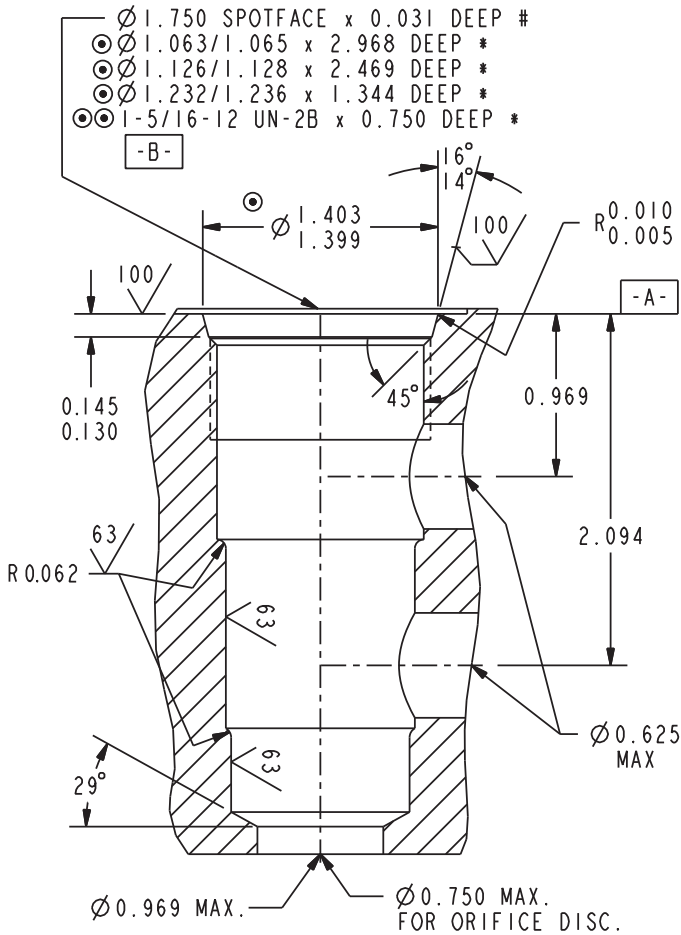
 $\odot \odot$ -

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

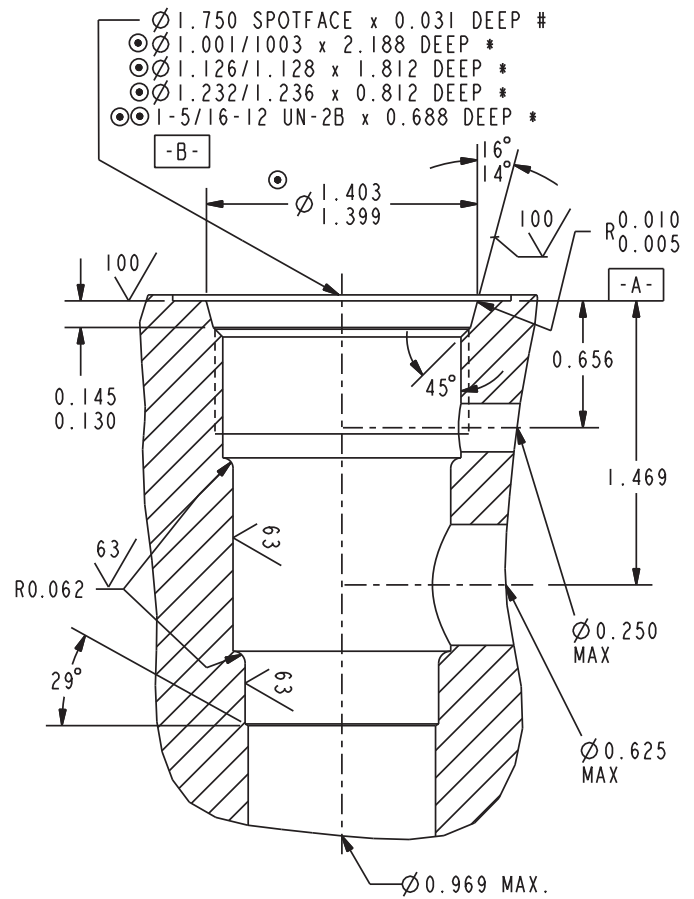
- * - DEPTHS ARE FROM DATUM -A- .
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].

Series 16 Cartridge Cavities

VC16-3



VC16-S3



NOTES:

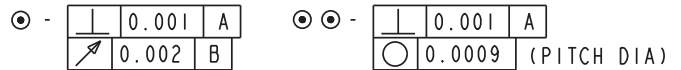
- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.



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

NOTES:

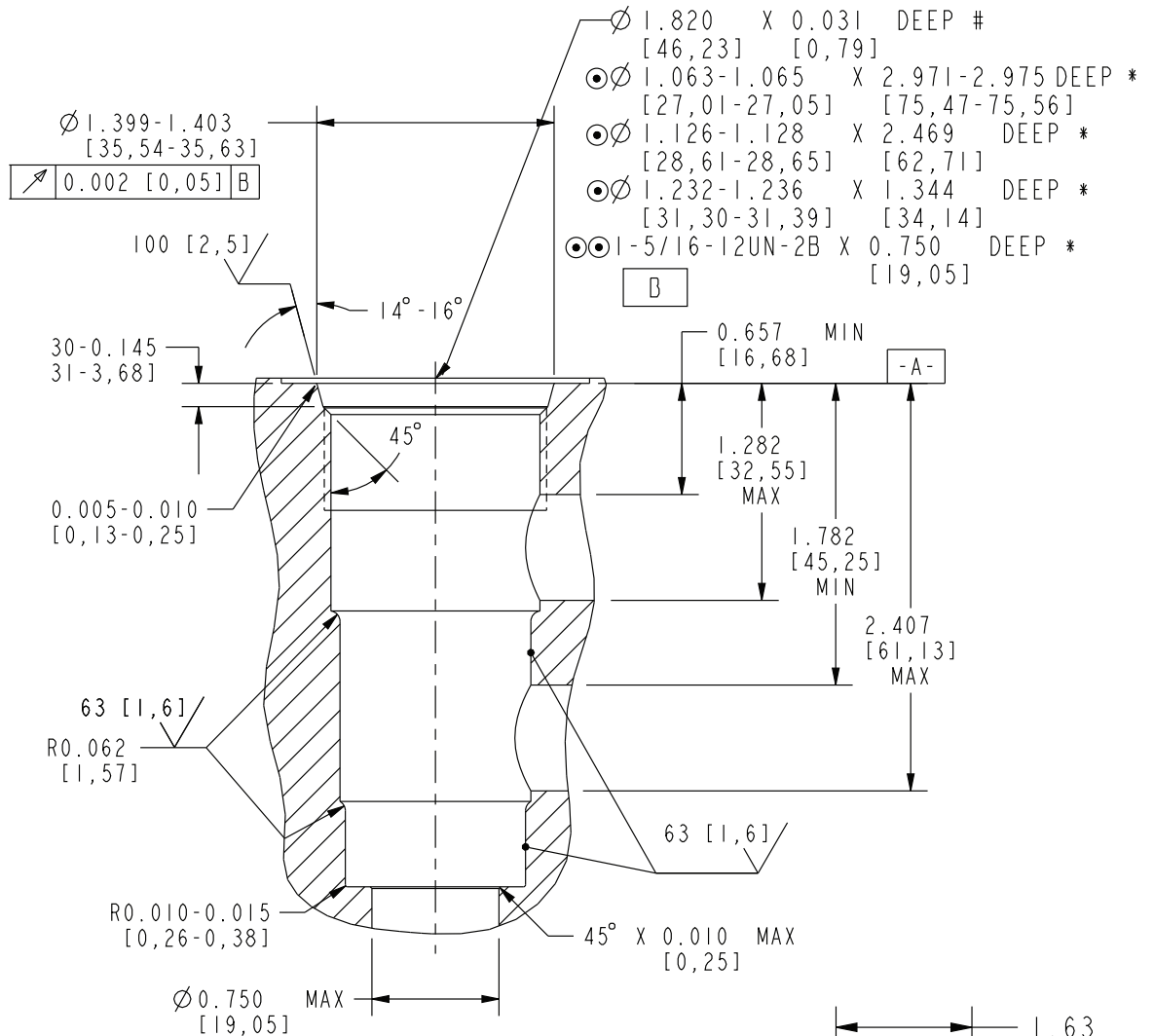
- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.



- * - 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:

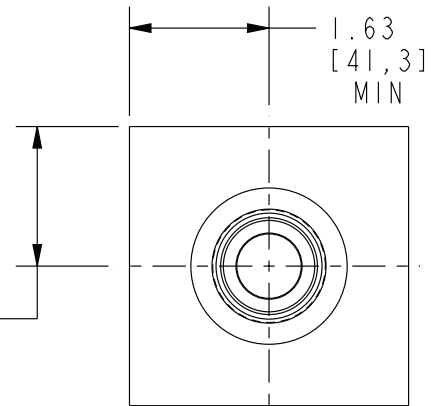
- \varnothing -

0.001	[0,025]	A
∇ 0.002	[0,05]	B
- $\varnothing \ominus$ -

0.001	[0,025]	A
\ominus 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



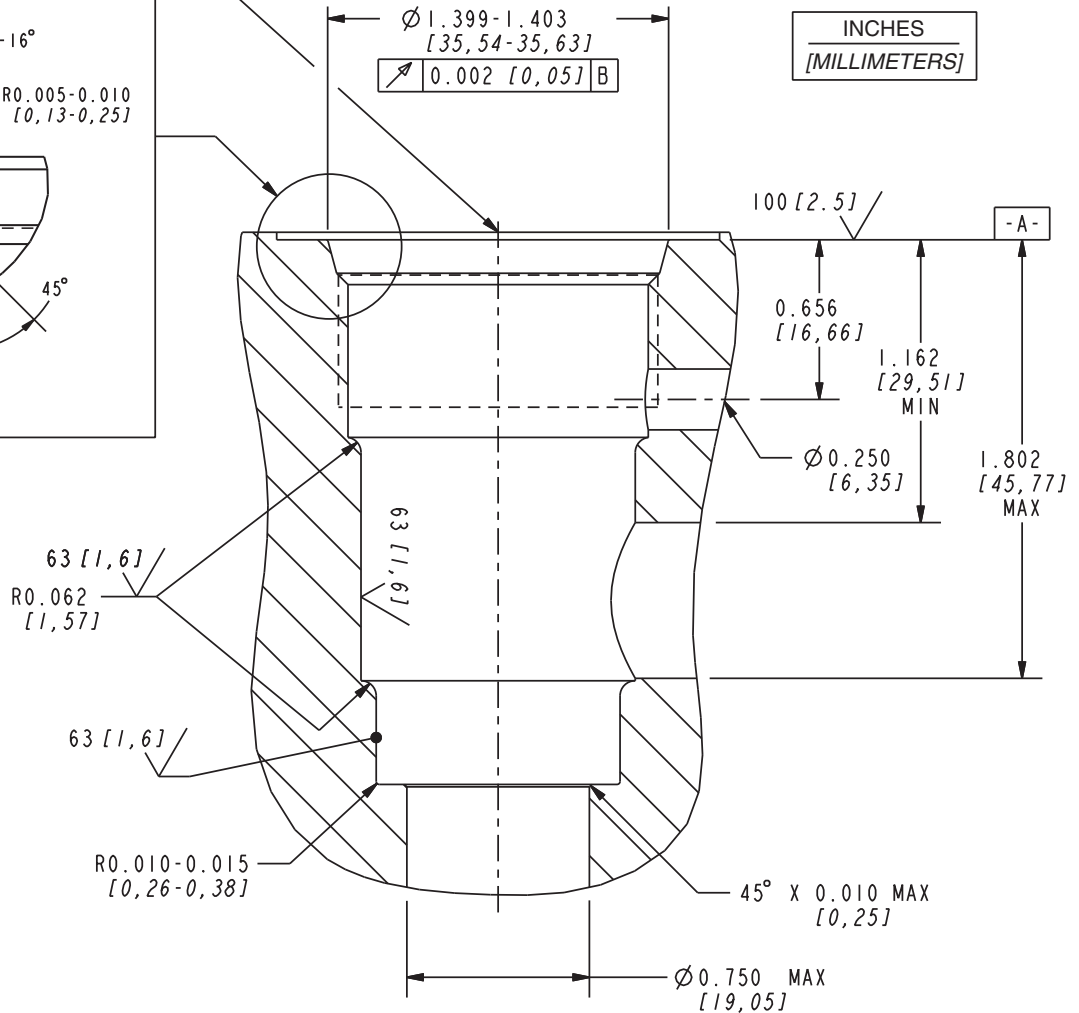
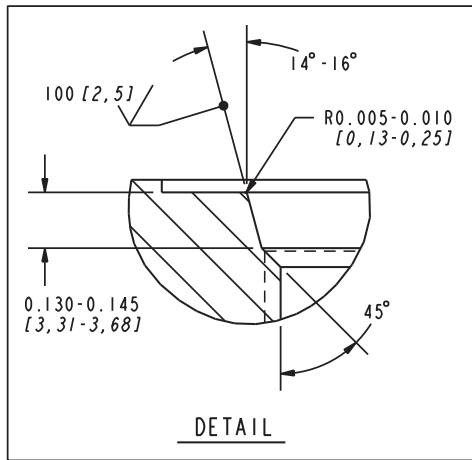
VALVE HOUSING DETAIL
 SCALE 1:2

Series 16 Cartridge Cavities

HVC16-S3

- ⊘ 1.820 [46,23] SPOTFACE X 0.031 [0,79] DEEP #
- ⊙ ⊘ 1.001-1.003 [25,43-25,47] X 2.236-2.240 [56,80-56,89] DEEP *
- ⊙ ⊘ 1.126-1.128 [28,61-28,65] X 1.812 [46,02] DEEP *
- ⊙ ⊘ 1.232-1.236 [31,30-31,39] X 0.812 [20,62] DEEP *
- ⊙⊙ 1-5/16-12 UN-2B X 0.688 [17,48] DEEP *

-B-



NOTES:

- ⊙ -

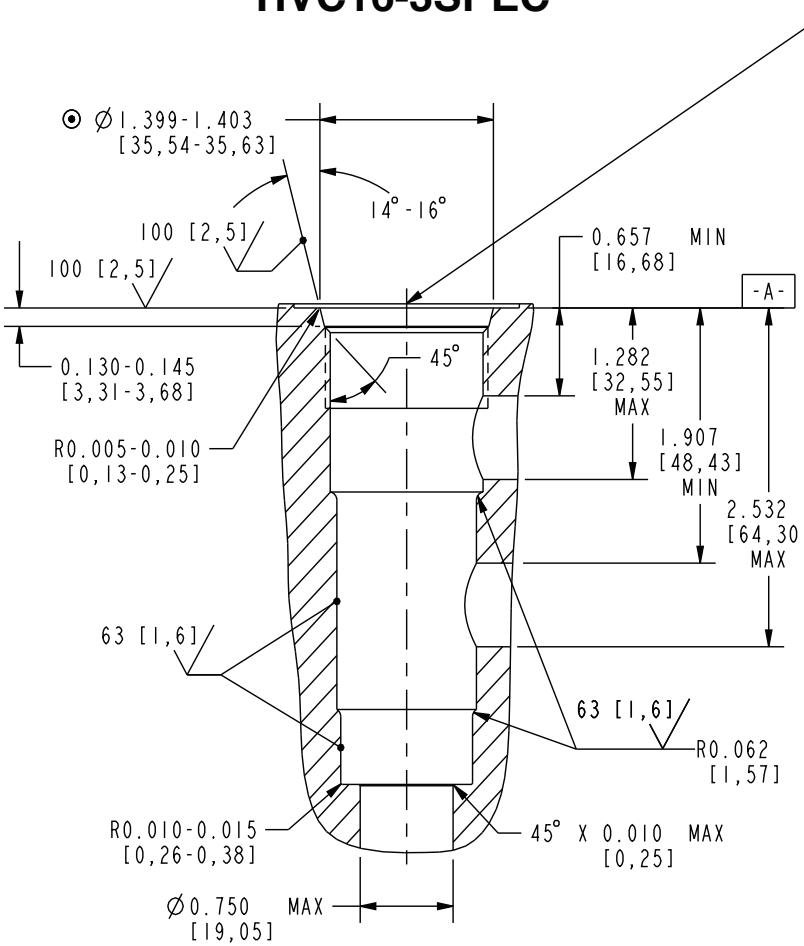
	0.001 [0,025]	A
	0.002 [0,05]	B
- ⊙⊙ -

	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 ±3° .
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS] .

Series 16 Cartridge Cavities

HVC16-3SPEC



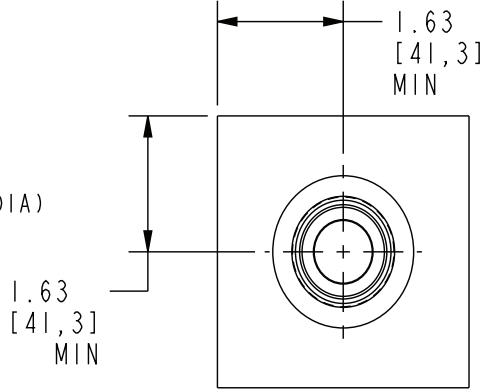
- \emptyset 1.820 X 0.031 DEEP # [46,23] [0,79]
 - \odot \emptyset 1.063-1.065 X 3.558-3.562 DEEP * [27,01-27,05] [90,38-90,47]
 - \odot \emptyset 1.126-1.128 X 3.000 DEEP * [28,61-28,65] [76,20]
 - \odot \emptyset 1.232-1.236 X 1.375 DEEP * [31,30-31,39] [34,93]
 - $\odot\odot$ 1-5/16-12 UN-2B X 0.750 DEEP * [19,05]
- B-

CAVITY TOOLS:
 7540710 - ROUGH
 7540720 - FINISH WITH TUNGSTEN INSERTS

NOTES:

\odot		0.001 [0,025]	A	$\odot\odot$		0.001 [0,025]	A
		0.002 [0,05]	B			0.0009 [0,023]	(PITCH DIA)

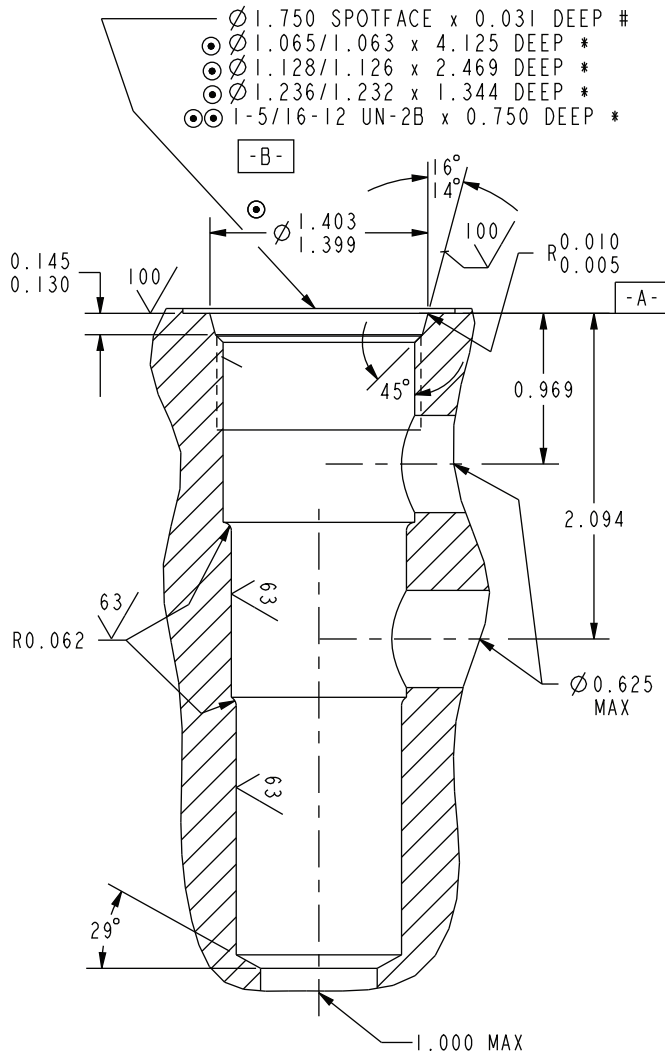
- * - DEPTHS ARE FROM DATUM -A- .
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ± 0.005 [0,13].
- UNSPECIFIED ANGULAR DIMENSIONS $\pm 3^\circ$.
- SURFACE FINISH SPECIFICATIONS ARE IN MICROINCHES [MICROMETERS].



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	⊙ ⊙ -		0.001	A
		↗	0.002			B	○

* - DEPTHS ARE FROM DATUM -A- .

- UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.

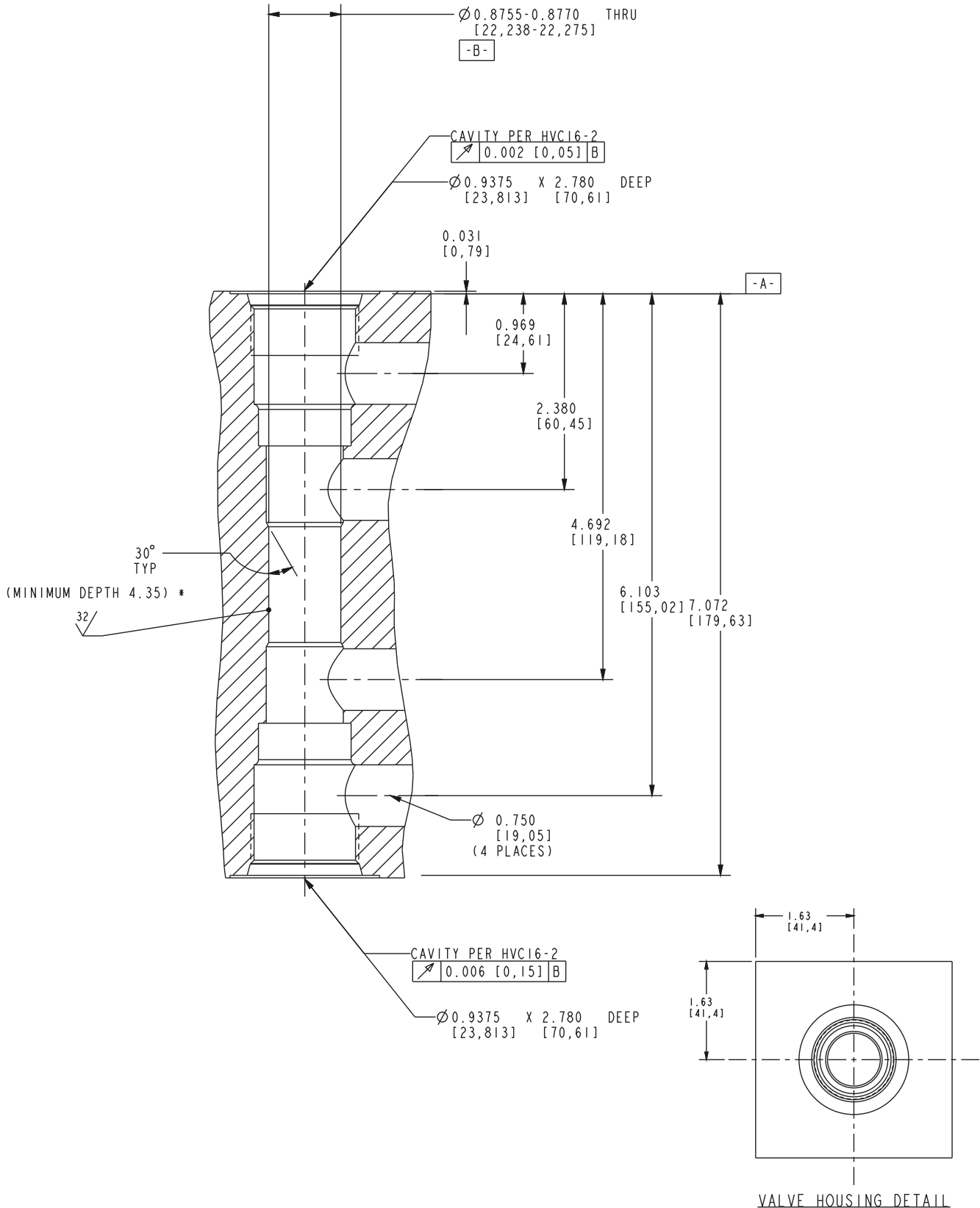
- UNSPECIFIED TOLERANCES ARE ± 0.005 .

- 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.

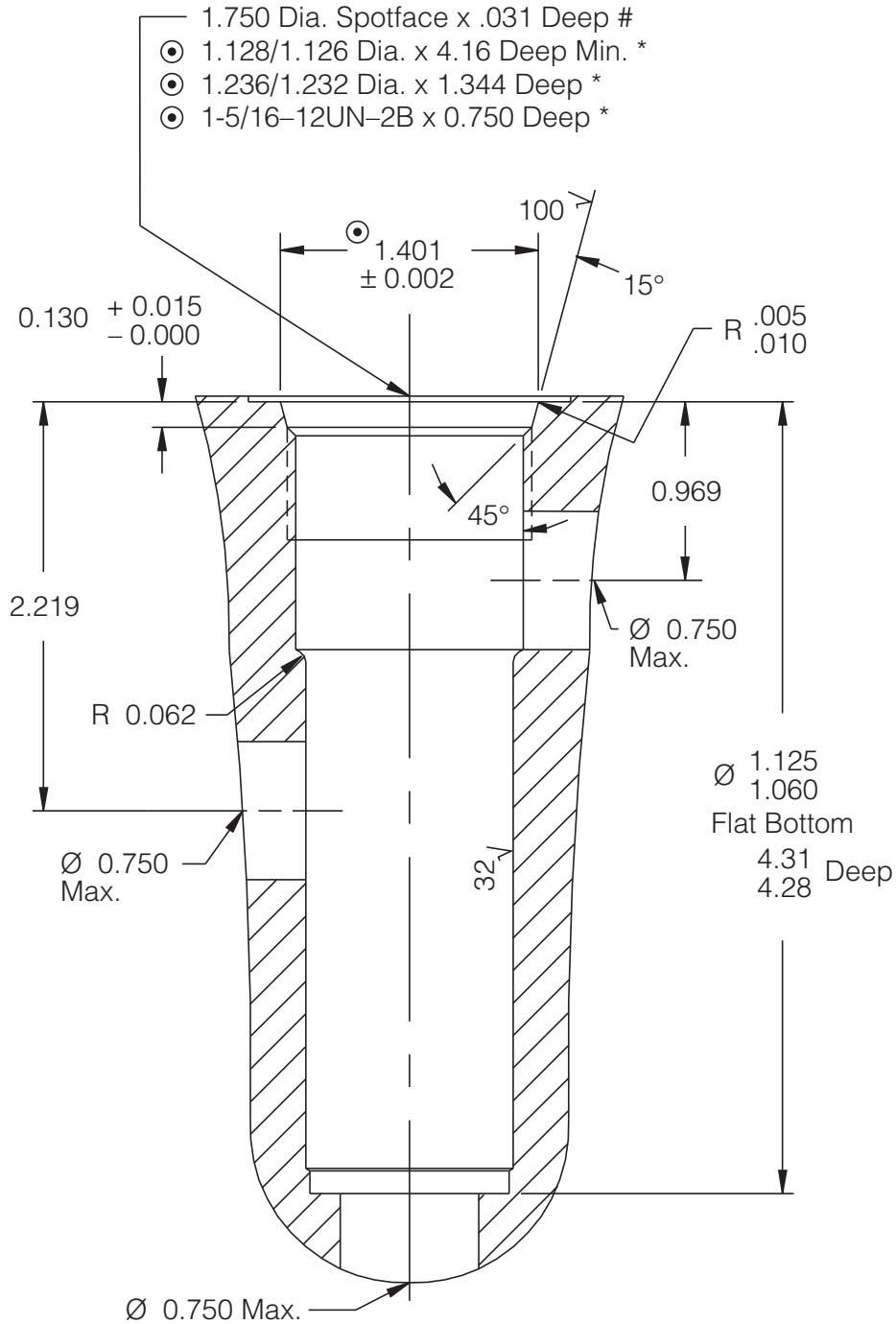
Series 16 Cartridge Cavities

HVC16-DPCV



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.

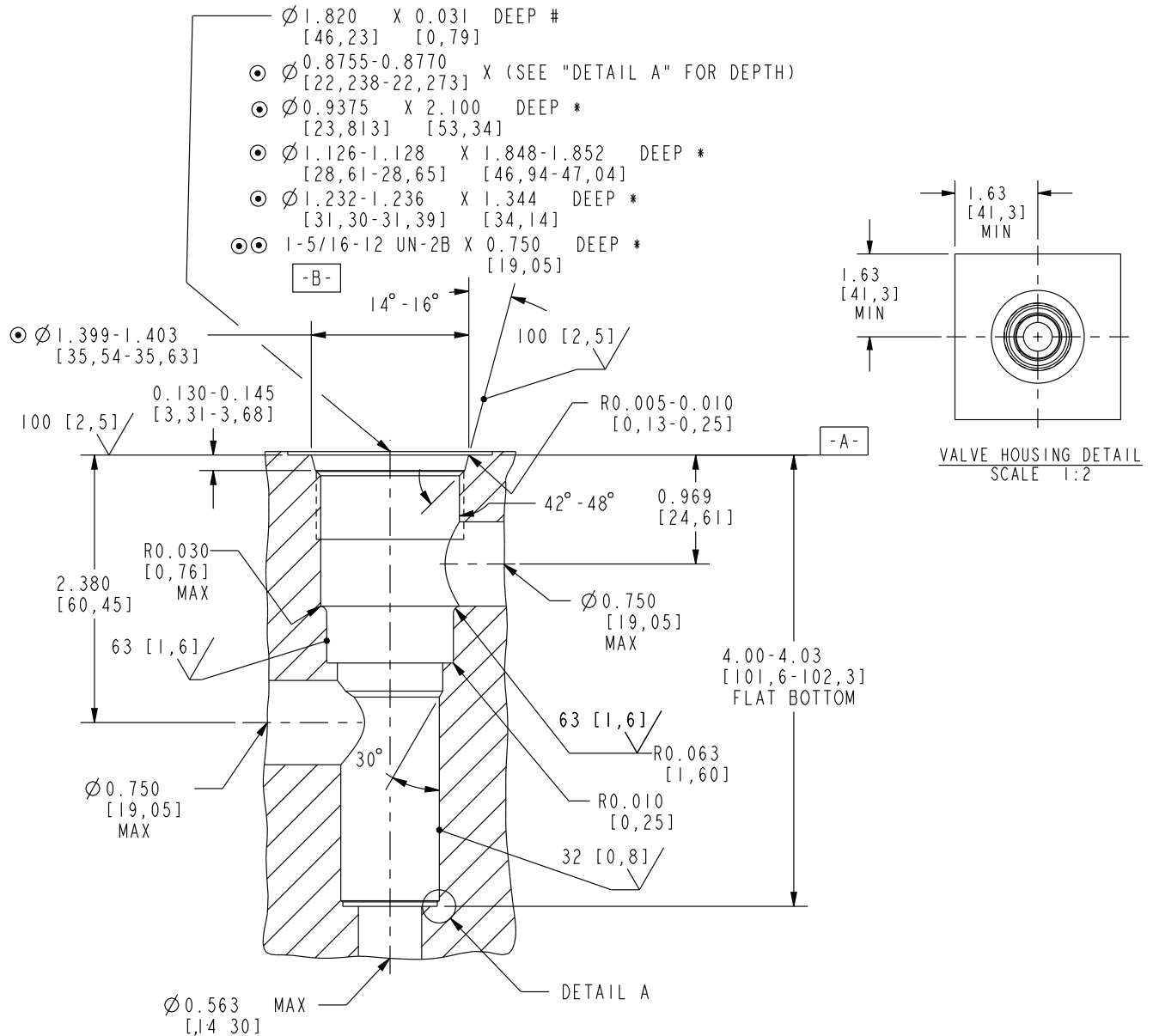
* — Depths are from spotface.

— Unless otherwise specified on machining drawing

Unspecified tolerances are ±0.005.

Series 16 Cartridge Cavities

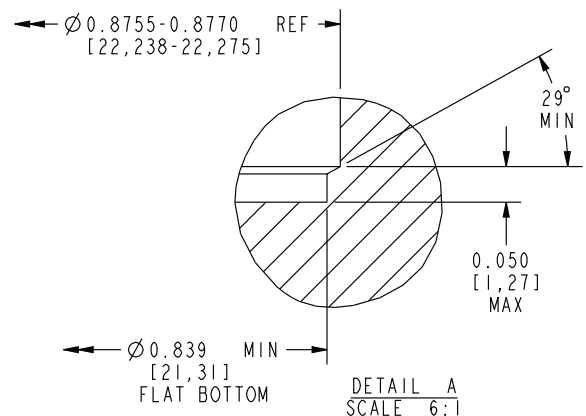
HVC16-PCV



NOTES:

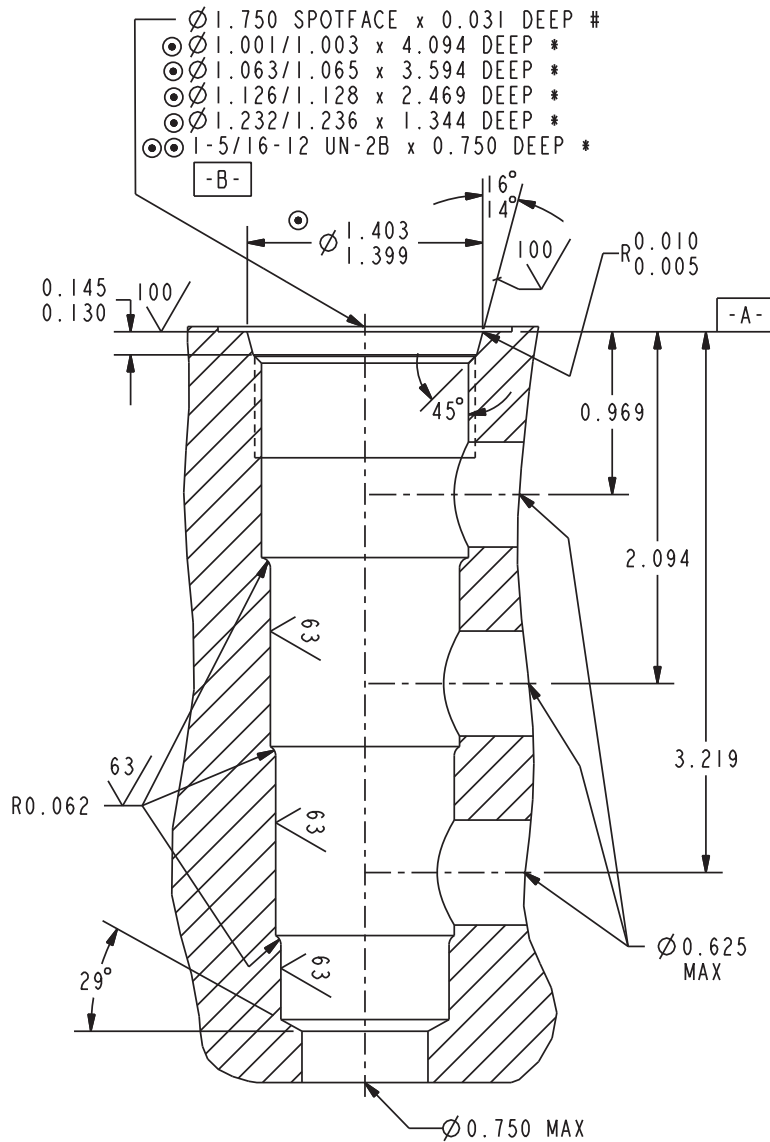
◎		0.001	A	◎◎		0.001	A
		0.002	B			0.0009	(PITCH DIA)

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



Series 16 Cartridge Cavities

VC16-4



NOTES:

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

\odot	\perp	0.001	A	$\odot \odot$	\perp	0.001	A
	∇	0.002	B		\circ	0.0009	(PITCH DIA)

* - DEPTHS ARE FROM DATUM -A- .

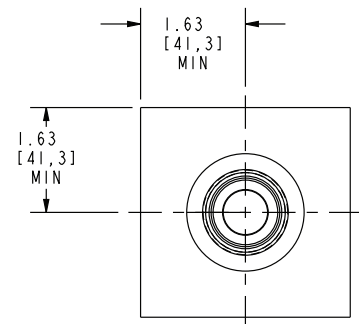
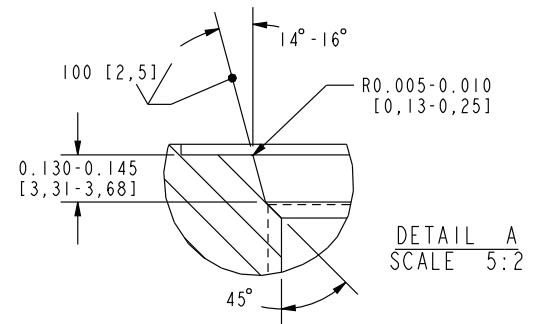
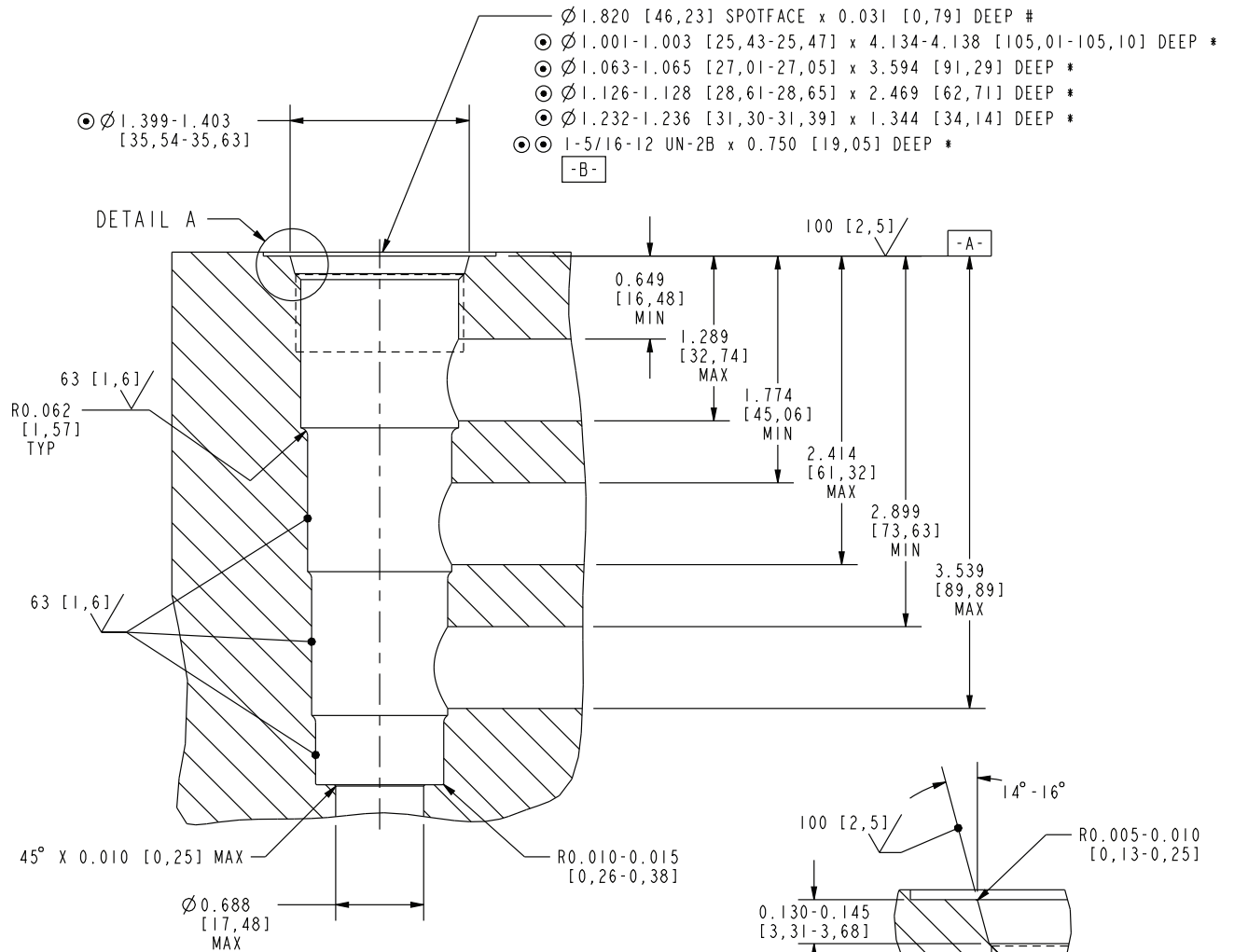
- UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.

- UNSPECIFIED TOLERANCES ARE ± 0.005 .

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

Series 16 Cartridge Cavities

HVC16-4



CAVITY TOOLS:

- 7541220 - ROUGH
- 7541230 - FINISH WITH TUNGSTEN INSERTS
- 7541240 - FINISH

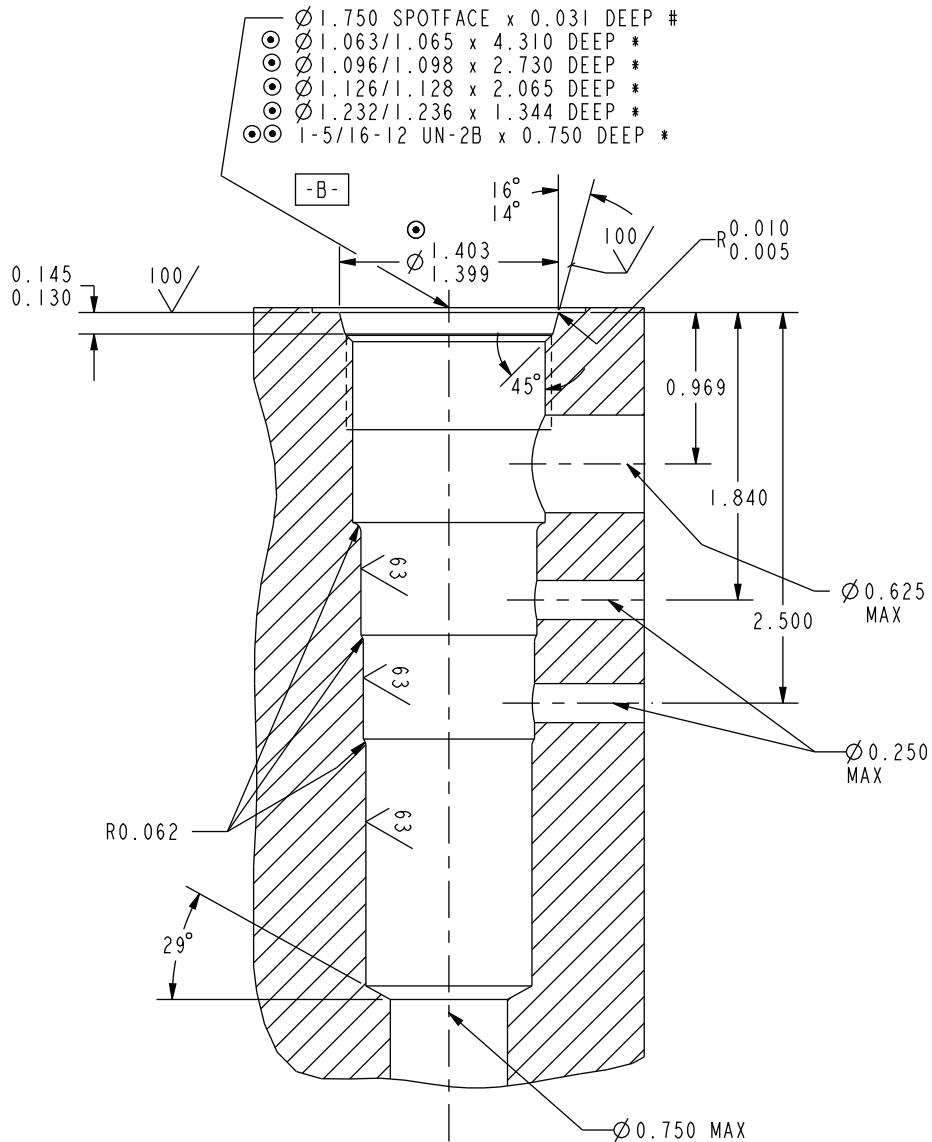
NOTES:

\odot -	0.001 [0,025]	A	$\odot \odot$ -	0.001 [0,025]	A
		0.002 [0,05]		B	

- * - 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

VC16-4SPCL



NOTES:

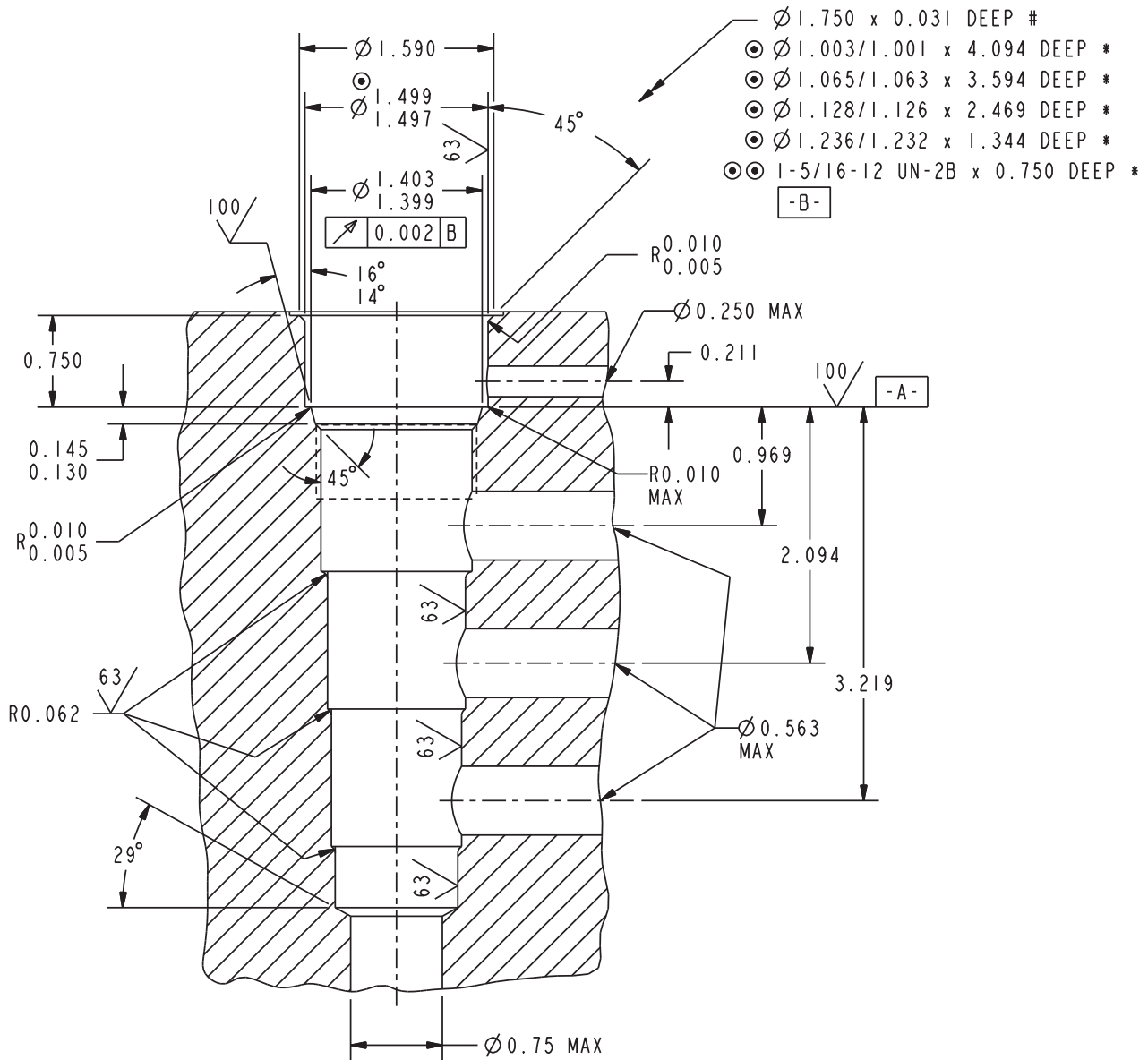
- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.

⊙		0.001	A	⊙⊙		0.001	A
			0.002			B	

- * - 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

VC16-S5



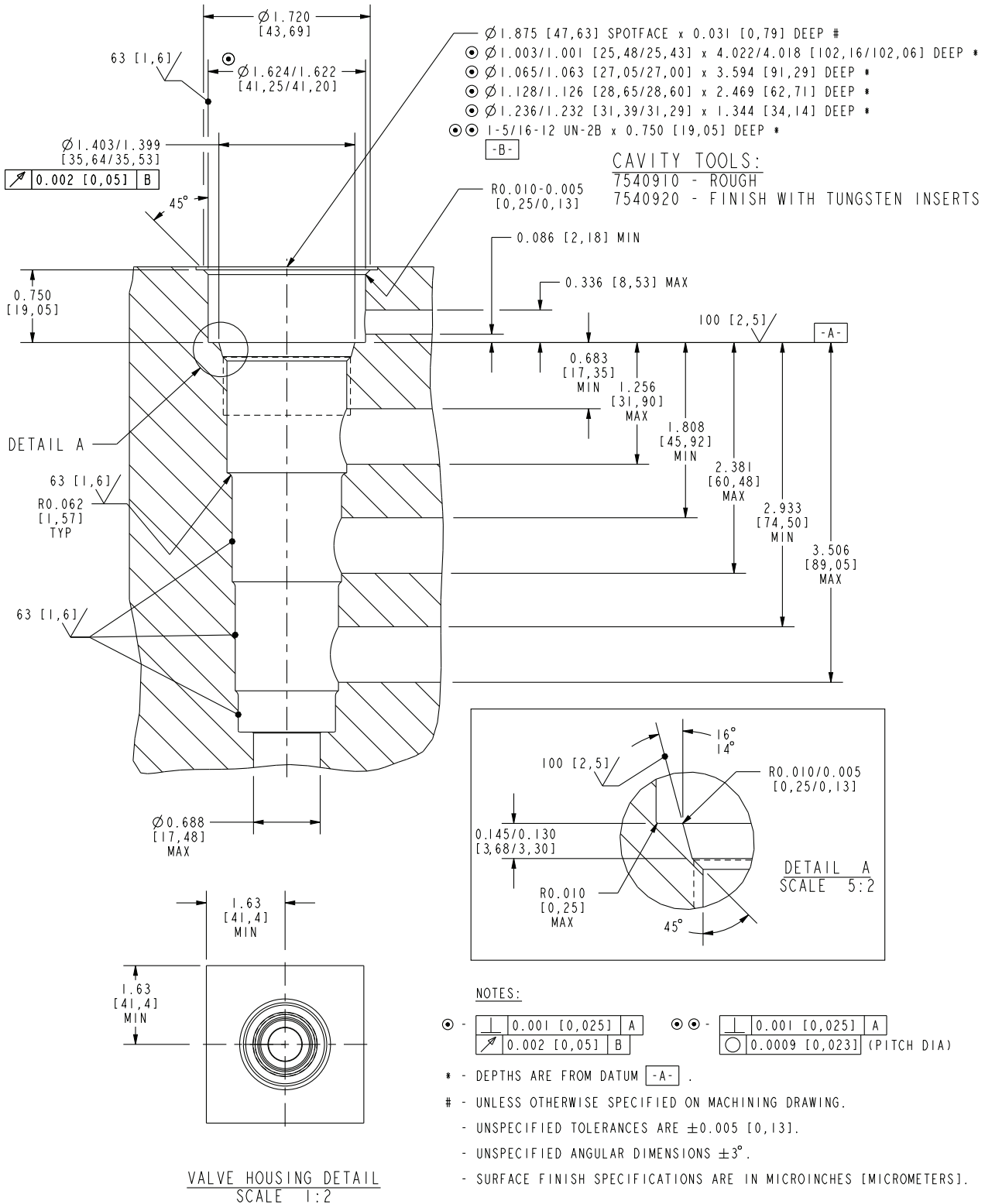
NOTES: - THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL AND CROSS DRILLS) CAN BE MACHINED SIMULTANEOUSLY USING HYDRAFORCE FORM TOOLS. CONSULT FACTORY.



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

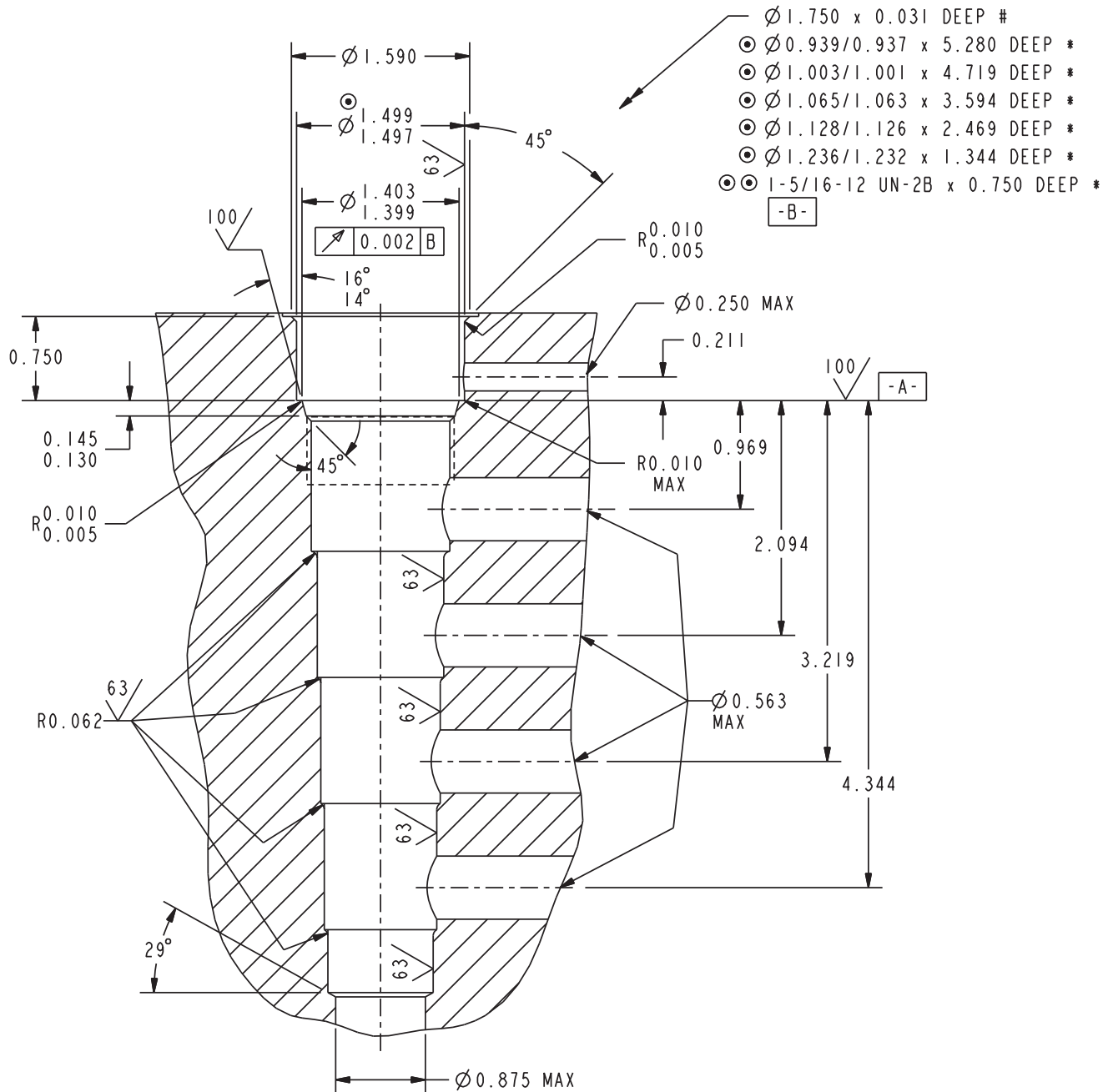
Series 16 Cartridge Cavities

HVC16-S5



Series 16 Cartridge Cavities

VC16-S6



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

\odot -

	0.001	A
↗	0.002	B

 $\odot \odot$ -

	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 $\pm 3^\circ$.