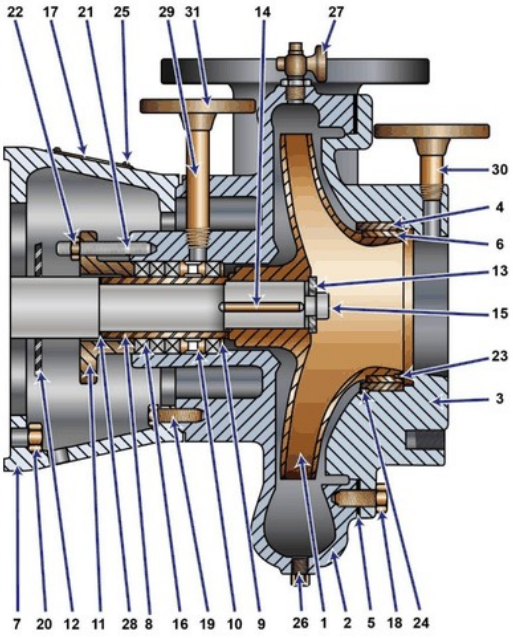

MEWB - General Subjects

1. What is the length of the stud used to secure the packing gland shown in the illustration

GS-0012

ITEM	QTY	DESCRIPTION	MATERIAL	REMARKS
1	1	Impeller	NI-CU Alloy	3H1A
2	1	Volute	Gunmetal	3H4C
3	1	Suction Cover	Gunmetal	3H193
4	1	Volute Wear Ring	Valve Bronze	A-3H180A
5	1	Volute Gasket	PTFE/ Glass Fiber Reinforced	P/N 3H37
6	1	Impeller Wear Ring	NI-CU Alloy	3H180
7	1	Motor Bracket	Cast Steel	2L3C
8	1	Shaft Sleeve	NI-CU Alloy	P/N A-014-20A-0-01
9	1	Throat Bushing	NI-CU Alloy	P/N 4L26-4
10	1	Lantern Ring	NI-CU Alloy	4L169
11	2	Gland Half	Bronze	B-017-5AH-A
12	1	Slinger	Neoprene	1 47/64 X 3 ¾ X 1/8TH
13	1	Impeller Washer	NI-CU Alloy	17/32 X 9/16 X 3/16TH
14	1	Impeller Key	NI-CU Alloy	¼ SQ X 2 5/16 TH
15	1	SKT HD Capscrew	SST	½-13 NC X 1¼ LG NYLOCK
16	5	Packing Rings	Plastic Metallic	1¾ X 2 5/8 X 7/16 SQ
17	1	Name Plate	Brass	P/N A-226-00N-0-03
18	8	Hex Head Capscrews	NI-CU Alloy	½-13 NC X 1 LG
19	4	Hex Head Capscrews	NI-CU Alloy	3/8-16 x 1 LG
20	4	Hex Head Capscrews	NI-CU Alloy	½-13 NC X 1 1/4 LG
21	2	Stud	SST	3/8-16 NC X 2½ LG
22	2	Hex Nut	Bronze	3/16-16 2
23	3	Setscrew	NI-CU Alloy	10-24 NC X ¼ LG CUP
24	3	Setscrew	NI-CU Alloy	10-24 NC X ¼ LG CUP
25	4	Drive Screw	Brass	6-24 X ¼ LG
26	3	Pipe Plug	Bronze	¼ NPT
27	1	Vent Valve	Bronze	¼ NPT
28	1	O Ring	Buna "N"	1 5/16 ID 1/16 WIDE
29	1	Pipe	70-30 CU-NI	4 11/16 LG ¼ NPT
30	1	Pipe	70-30 CU-NI	3 3/16 LG ¼ NPT
31	1	Flange	Valve Bronze	¼ INCH 150#

Note: Inside dia. of Wearing Ring, PC No. (4) is .020 undersize outside dia. of Wearing Ring, PC No. (6) is .020 oversize when finished as repair parts and are designated as part No. 5 A3H180A-1 U/S and 3H180-1 O/S



- 1 inch
- 1 1/4 inches
- 1 1/2 inches
- **2 1/2 inches**

Note:
The parts list identifies the stud length as 2 1/2 inches (3/8-16 NC X 2 1/2 LG).

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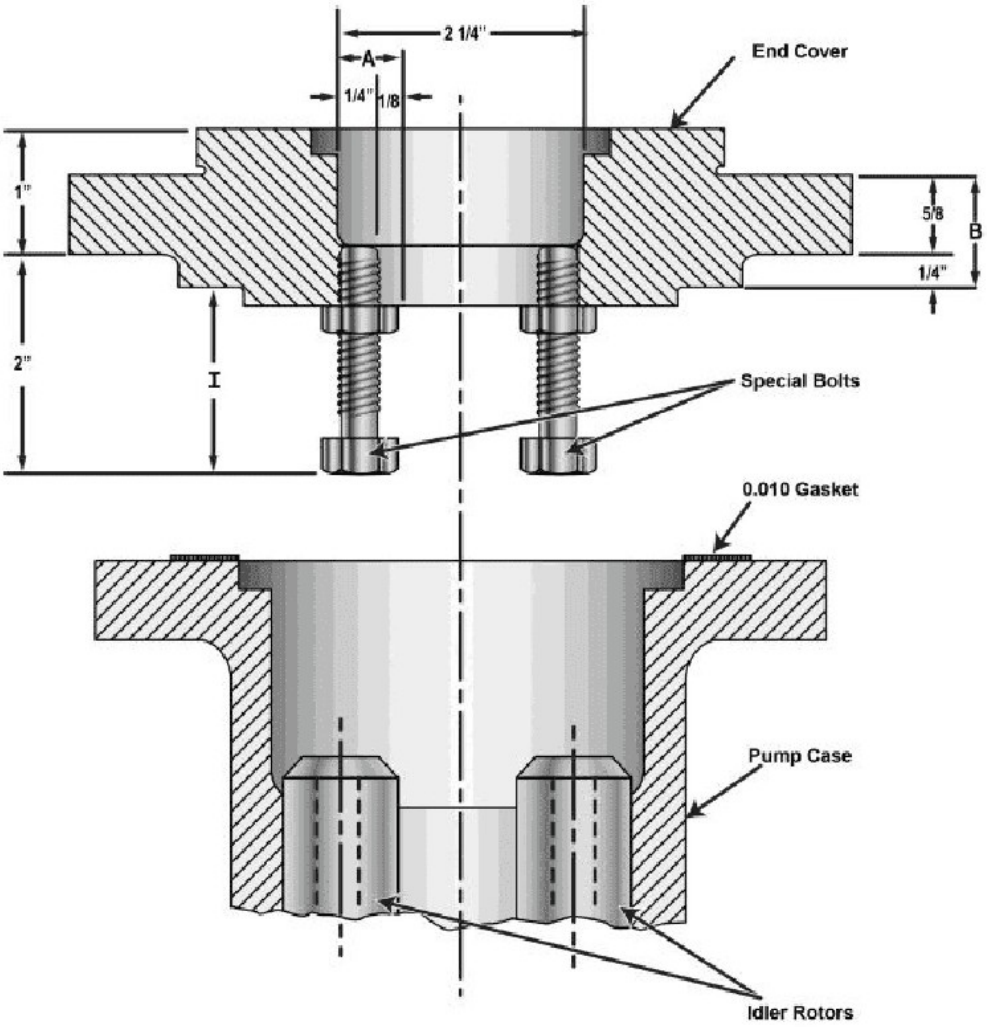
2. In the illustration shown, what is the distance indicated by dimension "I"



- 1 1/2 inches
- **1 3/4 inches**
- 1 7/8 inches
- 2 inches

Note:
Dimension 'I' represents the 1 3/4-inch vertical clearance between the end cover and the pump case, as indicated by the drawing's dimension lines. The dimension line for 'I' shows a value of 1 3/4 inches, which corresponds to the correct answer.

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3. What is the distance between the center of the discharge outlet and the top of the motor illustrated

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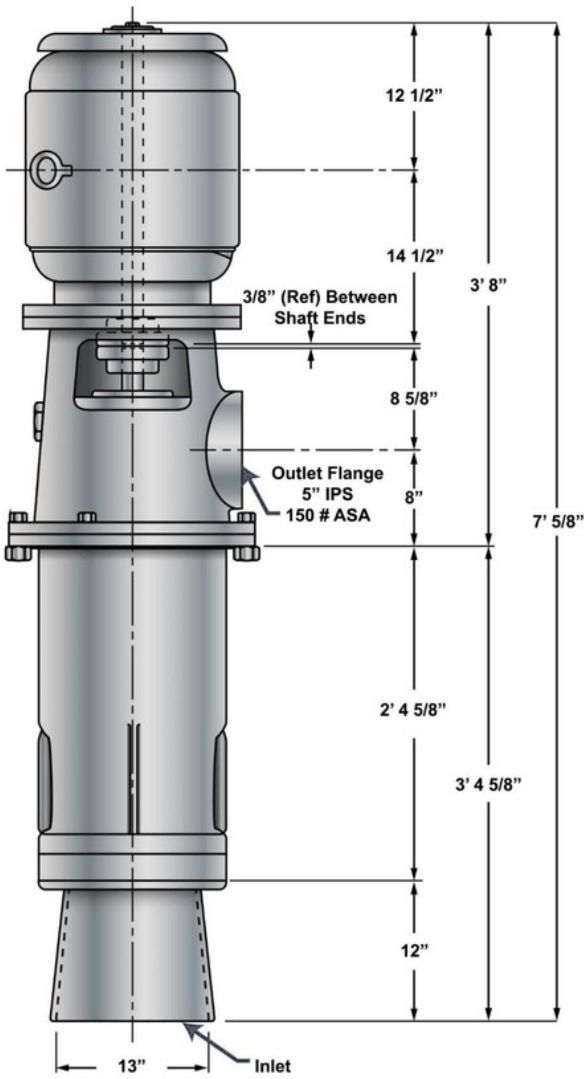

MOTOR CHARACTERISTICS

Motor (A. C.)	Electro Dynamic
Rating H. P.	25
Speed R. P. M. (SYN.)	1200
Frame	365 VY
Type	TN
Volts	440
Cycles	60
Phase	3

PUMP CHARACTERISTICS

Capacity G. P. M.	400
Speed R. P. M.	1150
Suction Lift "HG	10
B, H, P. @ 1200 SSU-75° F	24.9
Oil viscosity Range, SSU	74-7000
Viscosity Normal SSU @ 140° F	155
Discharge Normal PSIG	55
Fluid Handled, Lube Oil	2190 TEP.
Navy Specification	MIL-L-17331
Oil Temperature Range ° F	40-180

Illustration scale: 1" = 1'

- 34 5/8 inches
- 35 inches
- 35 5/8 inches
- **36 inches**

Note:
The correct answer is 36 inches. This distance is determined by summing the labeled vertical segments on the illustration, representing the total vertical distance from the discharge outlet centerline to the top of the motor.

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4. What is the distance between the center of the discharge outlet and the top of the motor illustrated

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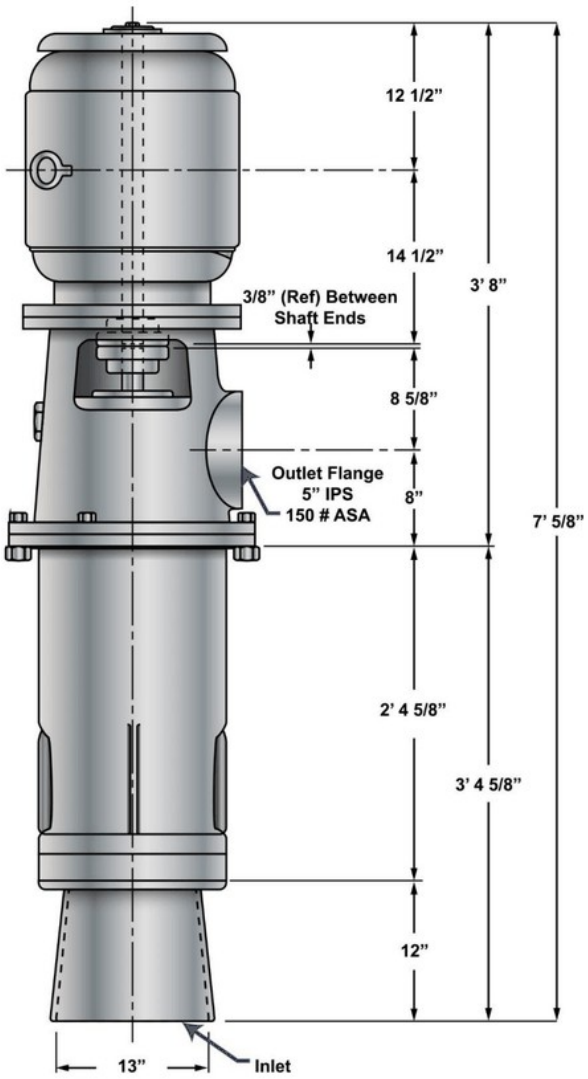

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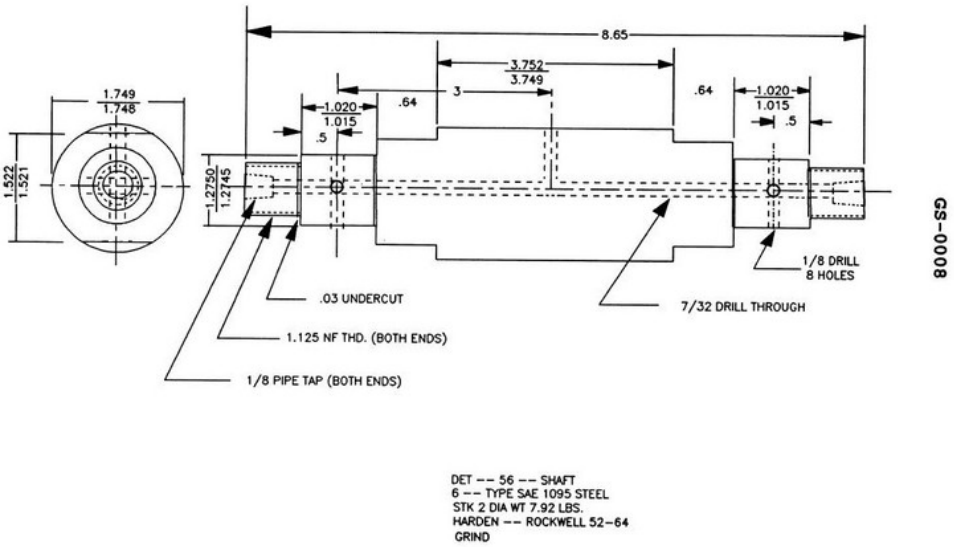
5. The physical feature indicated for each of the smallest diameter ends of the device illustrated is that they are _____



DET -- 56 -- SHAFT
6 -- TYPE SAE 1095 STEEL
STK 2 DIA WT 7.92 LBS.
HARDEN -- ROCKWELL 52-64
GRIND

- **threaded**
- smooth surfaced with opposing machined flats
- smoothed surfaced only
- threaded with opposing machined flats

Note:
The drawing labels the smallest diameter ends as '1.125 NF THD (BOTH ENDS),' indicating they are threaded. The note 'THD' signifies a thread, and the drawing does not depict any machined flats, eliminating options that include them. Therefore, the correct answer is threaded.

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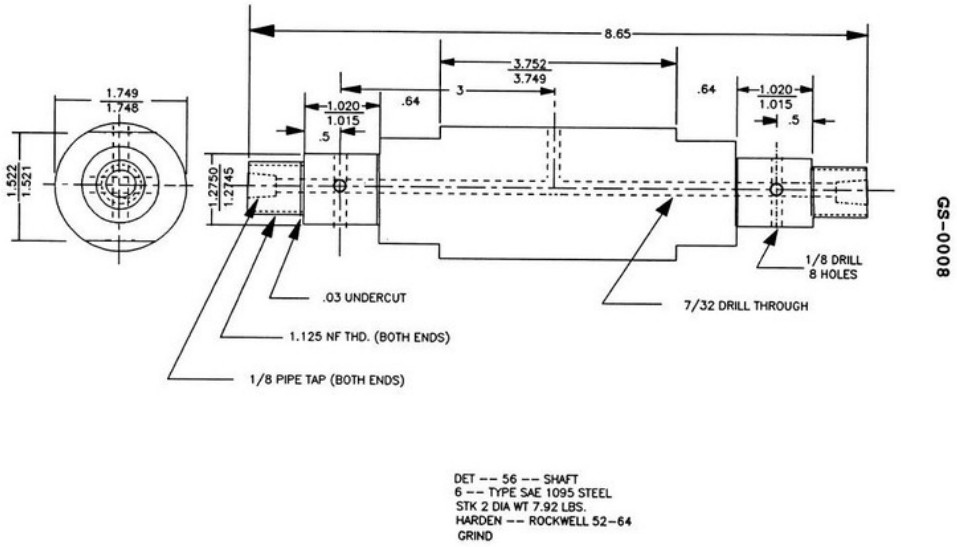
6. The maximum diameter of the device illustrated is _____



- 1.275 inches
- 1.522 inches
- **1.749 inches**
- 3.752 inches

Note:
The maximum diameter is 1.749 inches, as this is the upper limit of the outer shaft diameter shown on the drawing.

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7. In the pump shown in the illustration, what is the distance from the bottom of the inlet to the bottom end of the motor shaft

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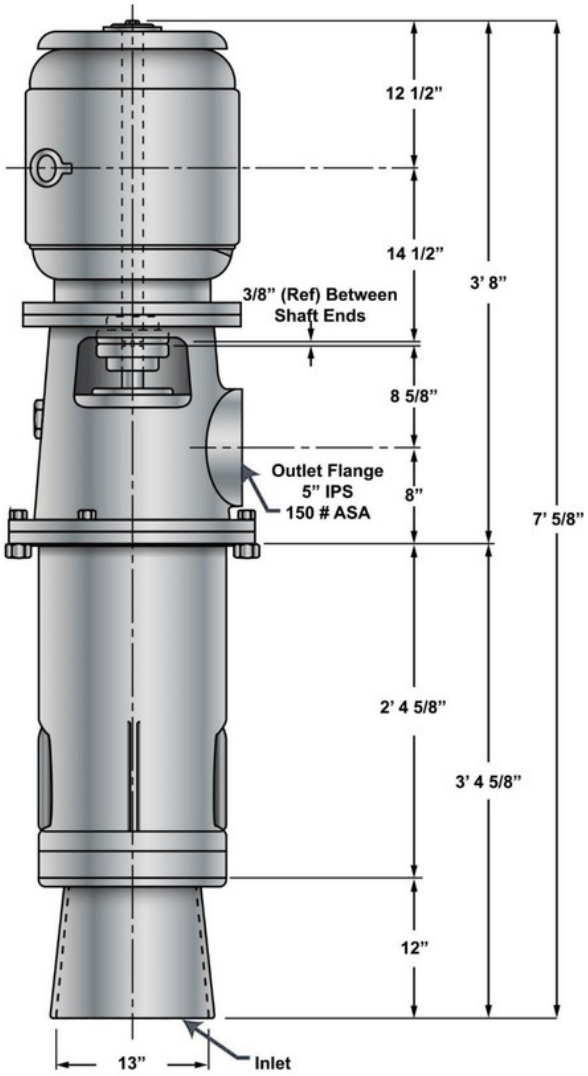

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Navy Specification	MIL-L-17331
Oil Temperature Range ° F	40-180

Illustration scale: 1" = 1'

- 45 1/4 inches
- 45 5/16 inches
- 53 5/8 inches
- **57 5/8 inches**

Note:
The distance from the bottom of the inlet to the bottom end of the motor shaft is 57 5/8 inches. This measurement accounts for the distance from the inlet to the pump shaft coupling, the 3/8-inch gap between the shafts, and the length of the motor shaft extending from the motor housing.

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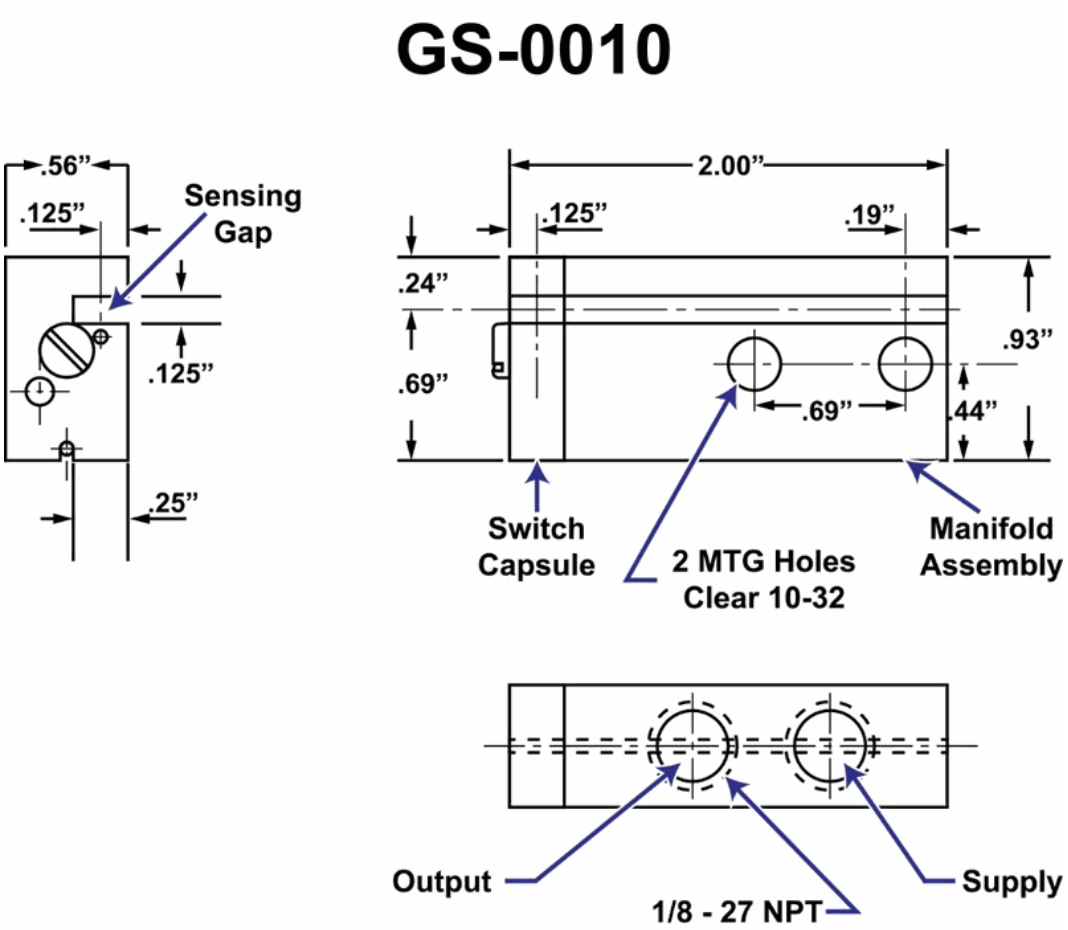
8. The dimension of the sensing gap in the left hand limit sensor assembly shown in the illustration is

_____



Left Hand Limit Sensor Assembly

- **1/8 inch**
- 1/4 inch
- 3/8 inch
- 1/2 inch

Note:
The drawing labels the sensing gap as 0.125 inches, which is equivalent to 1/8 inch. This dimension is directly associated with the labeled feature and is the correct answer.

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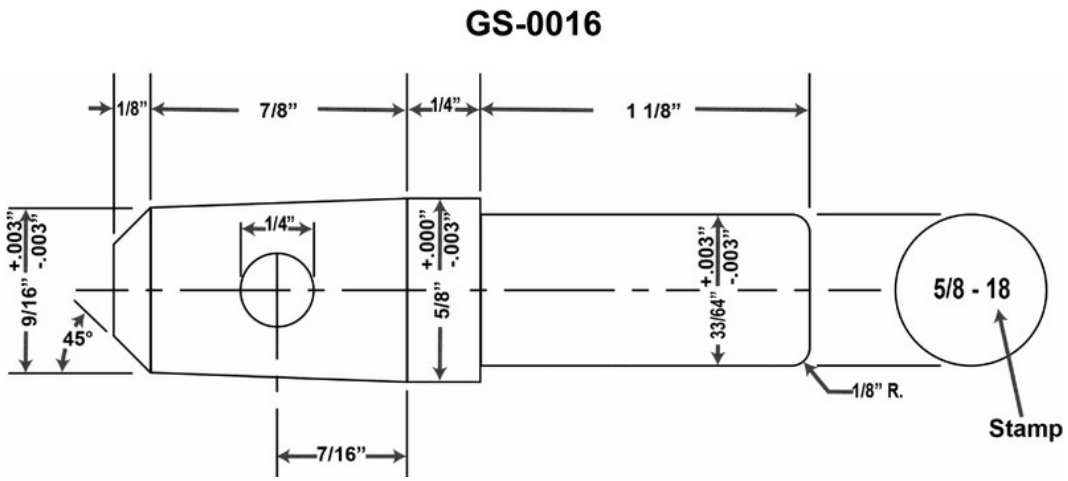
9. In the illustration shown, the notation 1/8"R indicates a one-eighth inch _____



- recess on one end of the tool
- rough finish on both ends of the tool
- 45° Chamfer on both ends of the tool
- **radius on one end of the tool**

Note:
The notation 1/8"R indicates a one-eighth inch radius on one end of the tool; this notation signifies a rounded corner, and the drawing specifies it only for one end.

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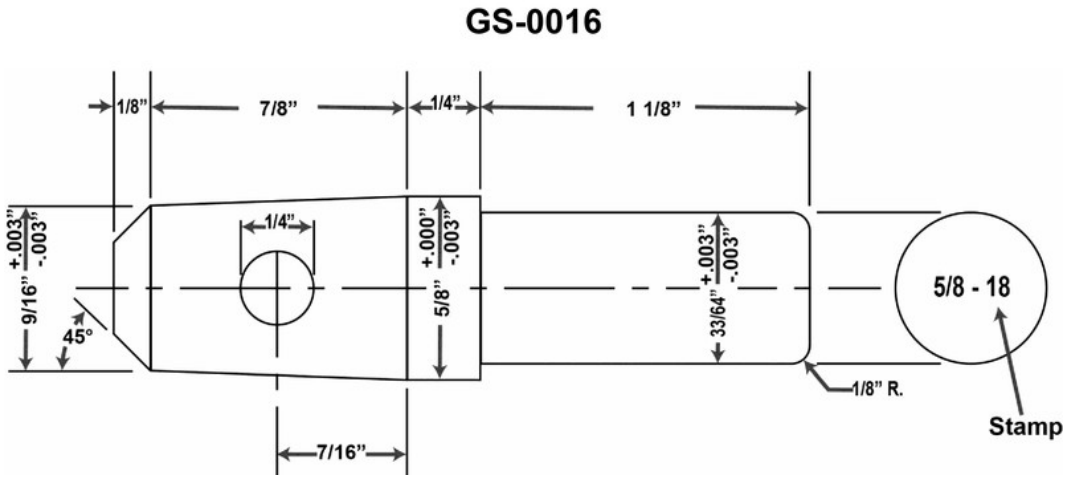
10. As shown in the illustration, the maximum shaft diameter is _____



- 0.562 inches
- 0.622 inches
- **0.625 inches**
- 0.628 inches

Note:
The maximum shaft diameter is 0.625 inches because the nominal diameter of 5/8 inch has a +0.000 / –0.003 inch tolerance, allowing only undersize variation and setting the maximum diameter at the nominal value.
