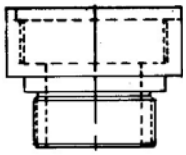
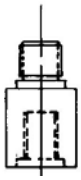
Taper Lock Sensors

Taper Lock Sensor Systems

ADAPTER QDP 27A SENSOR TO QDA 11 OR QDA 12 SENSOR

UDB-731206-A ADAPTER
QDA 11 or QDA 12
DWELL to QDP 27A SENSOR





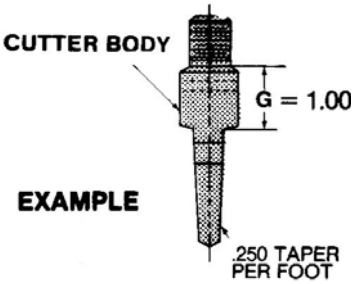
UDB-731205 ADAPTER
QDP 27A
DWELL to QDA 11 or QDA 12 SENSOR

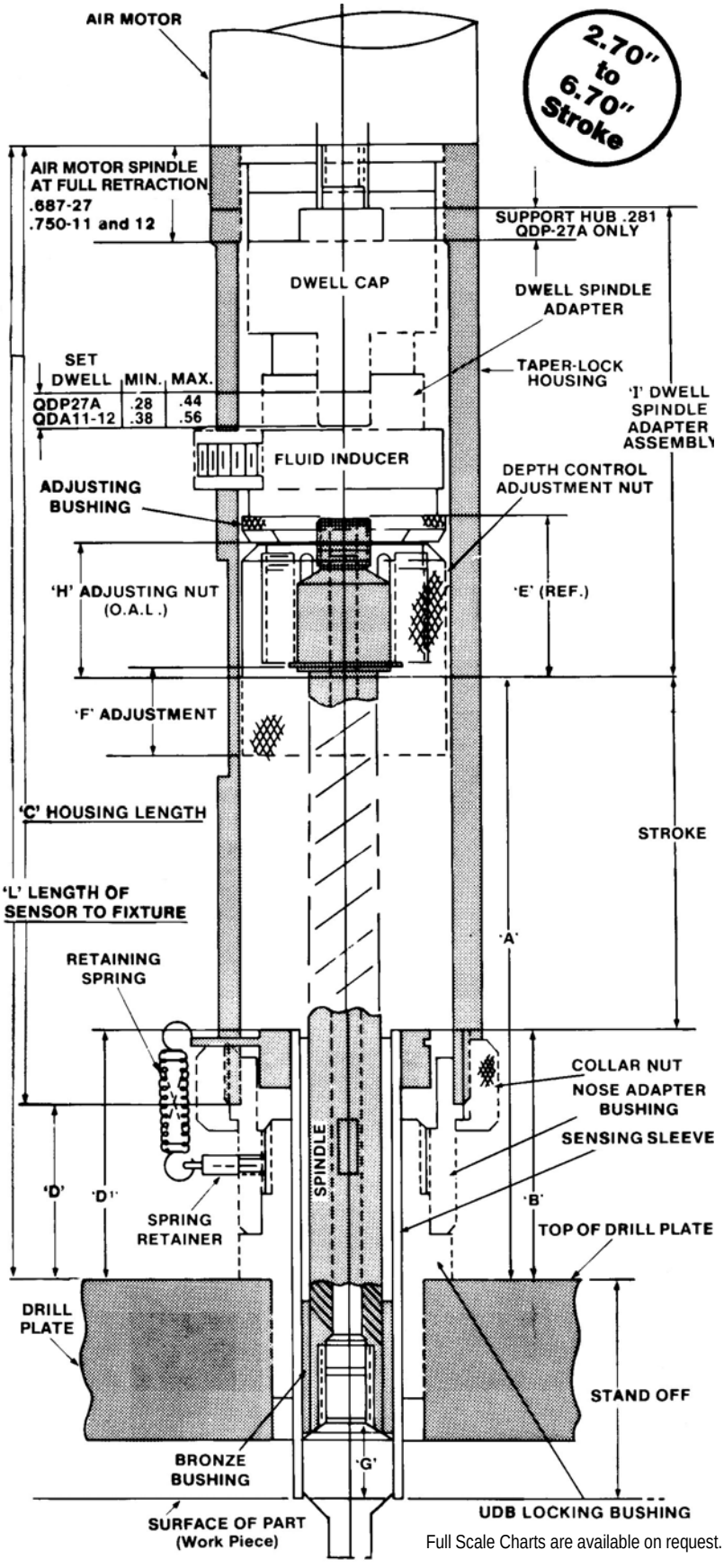
DETERMINING LENGTH
To determine lengths of sensing sleeves and spindles.

EXAMPLE: QDA 12 Motor 1/2" cutter group 3 AR with 2-5/8 standoff

SPINDLE
Deduct cutter body length 'G' (1.00) from standoff (2.625).
Add the 'A' (4.6) spindle dimension in the QDA 12 column block to the result of standoff minus 'G' (1.625) for a minimum spindle length of (6.225).
SENSING SLEEVE
Add the standoff (2.625) to the 'B' (3.00) dimension for (5.625) minimum sleeve length.

SENSING SLEEVE	SPINDLE
2.625 Standoff	2.625 Standoff
3.00 'B' dimension	1.00 'G' dimension
5.625 Min. Sleeve	1.625
	4.6 'A' dimension
	6.225 Min. Spindle





Full Scale Charts are available on request.

UNITED Sensors Make the Right Sense!

Taper Lock Sensor Systems

Ordering Taper Lock Sensors

QDA 11, QDA 12 OR QDP 27A TAPER LOCK SENSORS

ORDERING EXAMPLE								
BASE NO.	LOCK SERIES HELOX OR KELLER	FIXTURE HOLE	STAND OFF	SENSING SLEEVE I.D.	SENSING SLEEVE O.D.	LENGTH SENSING SLEEVE	SPINDLE LENGTH	SERIES CUTTER
UDB-756173	K-26	2.375	2.625	1.721	1.922	6.325	3.825	12-3AR

1. All dimensions listed are with motor spindle fully extended and depth control adjustment nut in pre-adjusted position.
2. 'A' and 'B' dimensions have been increased by 1/4" to assure adequate motor stroke for dwell and to compensate for standoff tolerances.
3. Available stroke for retracting spindle reduces as 'A' and 'B' dimensions increase.
4. Sleeve length must be sufficient so spindle guide will remain inside sleeve when cutter is fully retracted. If spindle guide is not inside sleeve at start of cut, coolant loss will occur.
5. For larger diameters, if the cutter length exceeds available stroke of unit, cutters must be shortened by tool design.
6. Capacities noted are for steel or titanium. Larger sizes can be accommodated for aluminum within stroke and sleeve/bushing diameter limitations.
7. When cutter dimension is added to spindle length, the sleeve-spindle relationship must be within reference 'E' and within the 'F' adjustment.
8. To determine sensing sleeve and spindle length, know your standoff and cutter dimensions.
9. Standoff can also be altered by changing the length of the nose adapter bushing. Changes in this component will alter the lengths of the spindle 'A' dimension and sensing sleeve 'B' dimension. Additional nose adapter bushing lengths are available.
10. The stroke can be altered by changing the lengths of the adjusting nut. If alterations are required in excess of the maximum adjustment, the adjusting bushing must be changed accordingly. Additional lengths are available.
11. UDB-756172 sensors for QDA 12 have a longer stroke and will adapt to the QDA 13 motor for longer cutters.

BUSHING O.D. DRILL PLATE HOLE ASSEMBLY NO.	MOTOR KELLER SERIES HELOX SERIES	MAX. STROKE	A SPINDLE LENGTH	B SLEEVE LENGTH	C HOUSING LENGTH	D ADAPTER FIXTURE	E SPINDLE INSIDE ADAPTER	F ADJUSTMENT NUT	H ADJUSTMENT NUT OVERALL	I DWELL SPINDLE ADAPTER ASSY	L LENGTH OF SENSOR TO FIXTURE	MAX. CAPACITY
.875 UDB-756177-5-23-.875	QDP 27A UDB-A23000 UDB-A530000	2.7	4.3 BRONZE BUSHING .687 O.D.	3.0 .687 I.D. .781 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	3/16 GP-1, 2, 3 1/4 GP-1, 2 ✶5/16 GP-1, 2
1.125 UDB-756177-5-23-1.125	QDP 27A UDB-A23000 UDB-A530000	2.7	4.3 BRONZE BUSHING .875 O.D.	3.0 .875 I.D. 1.00 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	1/4 GP-1, 2, 3 5/16 GP- 1, 2, 3⅄
1.000 UDB-756177-4-24-1.000	QDP 27A UDB-A24000 UDB-A540000	2.7	4.3 BRONZE BUSHING .750 O.D.	3.0 .750 I.D. .875 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	1/4 GP-1, 2, 3 ✶5/16 GP- 1, 2, 3⅄
1.250 UDB-756177-5-24-1.250	QDP 27A UDB-A24000 UDB-A540000	2.7	4.3 BRONZE BUSHING .750 O.D.	3.0 .750 I.D. 1.00 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	1/4 GP-1, 2, 3 ✶5/16 GP- 1, 2, 3⅄
1.375 UDB-756177-6-24-1.375	QDP 27A UDB-A24000 UDB-A540000	2.7	4.3 BRONZE BUSHING .875 O.D.	3.0 .750 I.D. 1.00 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	1/4 GP-1, 2, 3 ✶5/16 GP- 1, 2, 3⅄ ✶3/8 GP-1, 2
1.375 UDB-756177A-6-24-1.375	QDP 27A UDB-A24000 UDB-A540000	2.7	4.3 BRONZE BUSHING 1.00 O.D.	3.0 1.00 I.D. 1.125 O.D.	8.87 ALUM BLUE	2.0	1.3	.75	1.5	4.6	10.87	5/16 GP- 1, 2, 3⅄ 3/8 GP-1, 2, 3⅄
1.250 UDB-756171-5-24-1.250	QDA 11 UDB-A24000 UDB-A540000	4.0	4.6 BRONZE BUSHING .750 O.D.	3.0 .750 I.D. 1.00 O.D.	10.88 ALUM GOLD	2.0	1.6	1.5	1.8	5.3	12.88	1/4 GP-1, 2, 3 ✶5/16 GP-1, 2, 3
1.375 UDB-756171-9-24-1.375	QDA 11 UDB-A24000 UDB-A540000	4.0	4.6 BRONZE BUSHING 1.125 O.D.	3.0 1.125 I.D. 1.250 O.D.	10.88 ALUM GOLD	2.0	1.6	1.5	1.8	5.3	12.88	1/4 GP-3 5/16 GP-3 3/8 GP-1, 2, 3, 4 7/16 GP-1, 2 1/2 GP-1, 2 ✶9/16 GP-1
2.000 UDB-756171-12-25-2.000	QDA 11 UDB-A24000 UDB-A540000	4.0	5.6 BRONZE BUSHING 1.750 O.D.	4.0 1.750 I.D. 1.875 O.D.	10.88 ALUM GOLD	2.75 D[1] 3.75	1.6	1.5	1.8	5.3	13.63	9/16 GP-1 5/8 GP-1 3/4 GP-1
1.375 UDB-756172-9-24-1.375	QDA 12 UDB-A24000 UDB-A540000	4.0	4.6 BRONZE BUSHING 1.125 O.D.	3.0 1.125 I.D. 1.250 O.D.	13.50 STEEL GREEN	2.0	1.6	1.5	1.8	5.3	15.50	7/16 GP- 3 1/2 GP-3 ✶9/16 GP-1, 2
2.000 UDB-756172-14-25-2.000	QDA 12 UDB-A25000 UDB-A550000	4.0	5.6 BRONZE BUSHING 1.750 O.D.	4.0 1.750 I.D. 1.875 O.D.	13.50 STEEL GREEN	2.75 D[1] 3.75	1.6	1.5	1.8	5.3	16.25	9/16 GP-1, 2 5/8 GP-1, 2 3/4 GP-1, 2 ✶7/8 GP-1, 2⅄

✶ O.D. Reduced ⅄ Alter Length Manufactured as Required.

Taper Lock Sensors

Right Angle Motor Depth Sensor Systems

RIGHT ANGLE MOTOR DEPTH SENSORS

Use with Quackenbush, Rockwell and Zephyr Right-Angle Motors

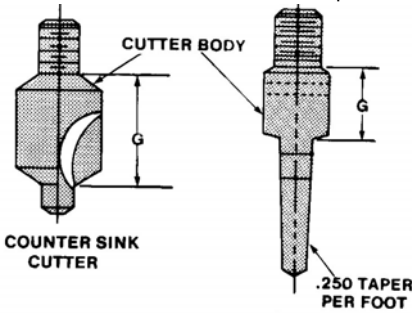
DETERMINING LENGTH
To determine lengths of sensing sleeves and spindles.

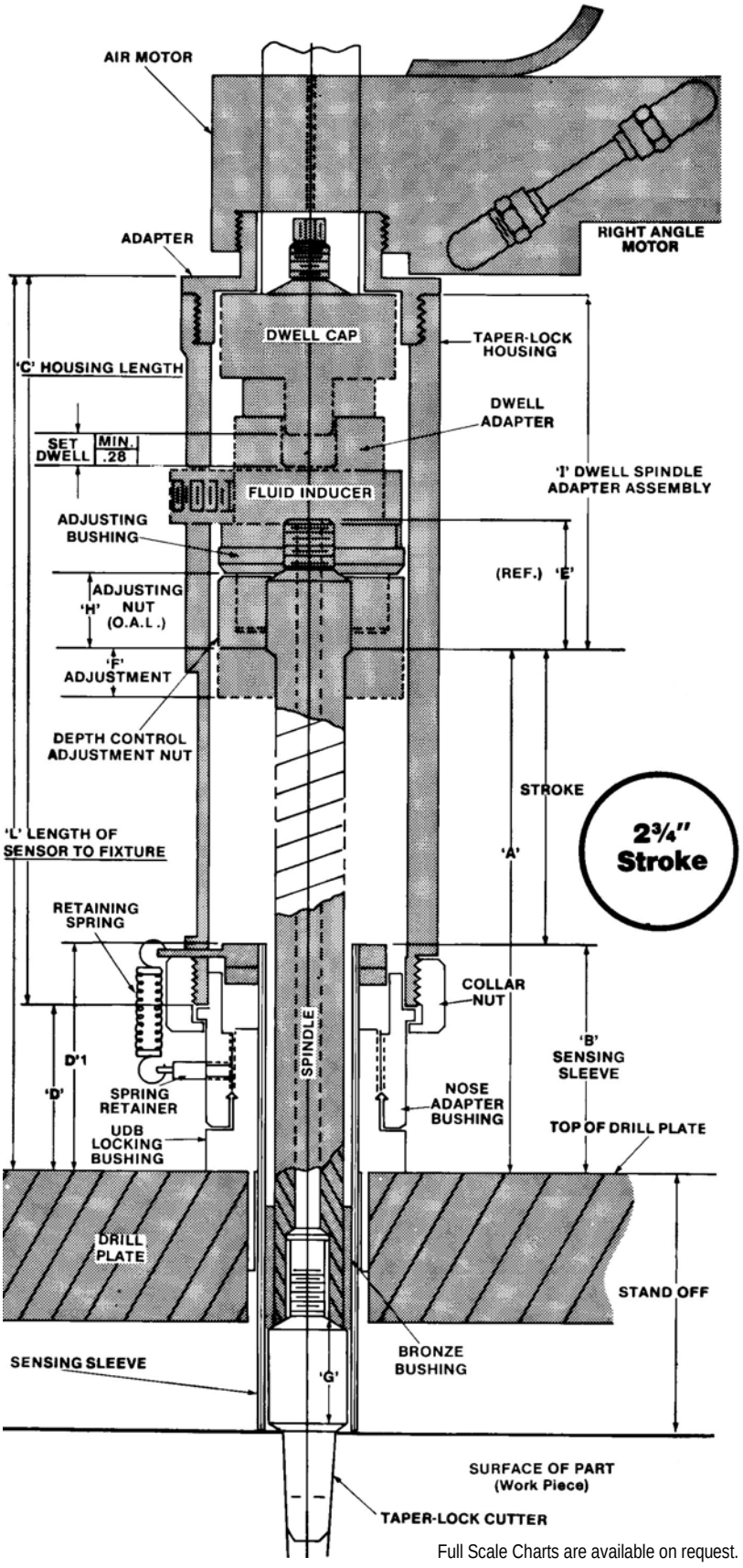
EXAMPLE: QCQ-C2AA Motor 3/8" countersink cutter with 2-5/8 standoff

SPINDLE
Deduct cutter body length 'G' from standoff (2.625). Add the 'A' (3.4) spindle dimension in the sensor column block to the result of standoff minus 'G' (1.505) for a minimum spindle length of (4.905).

SENSING SLEEVE
Add the standoff (2.625) to the 'B' (2.4) dimension for (5.025) minimum sleeve length.

SENSING SLEEVE	SPINDLE
2.625 Standoff	2.625 Standoff
2.40 'B' dimension	1.12 'G' dimension
5.025 Min. Sleeve	1.505
	3.4 'A' dimension
	4.905 Min. Spindle





Full Scale Charts are available on request.

Taper Lock Sensor Systems

Ordering Right Angle Depth Sensors

ORDERING EXAMPLE								
BASE NO.	LOCK SERIES HELOX OR KELLER	FIXTURE HOLE	STAND OFF	SENSING SLEEVE I.D.	SENSING SLEEVE O.D.	LENGTH SENSING SLEEVE	SPINDLE LENGTH	SERIES CUTTER
UDB-756162A	K-24	1.375	2.625	1.000	1.187	5.025	4.905	3/8 C'SINK

RIGHT ANGLE MOTOR TAPER LOCK DEPTH SENSORS

1. All dimensions listed are with motor spindle fully extended and depth control adjustment nut in pre-adjusted position.
2. 'A' and 'B' dimensions have been increased by 1/4" to assure adequate motor stroke for dwell and to compensate for standoff tolerances.
3. Available stroke for retracting spindle reduces as 'A' and 'B' dimensions increase.
4. Sleeve length must be sufficient so spindle guide will remain inside sleeve when cutter is fully retracted. If spindle guide is not inside sleeve at start of cut, coolant loss will occur.
5. For larger diameters, if the cutter length exceeds available stroke of unit, cutters must be shortened by tool design.
6. Capacities noted are for steel or titanium. Larger sizes can be accommodated for aluminum within stroke and sleeve/bushing diameter limitations.
7. When cutter dimension is added to spindle length, the sleeve-spindle relationship must be within reference 'E' and within the 'F' adjustment.
8. To determine sensing sleeve and spindle length, know your standoff and cutter dimensions.
9. Standoff can also be altered by changing the length of the nose adapter bushing. Changes in this component will alter the lengths of the spindle 'A' dimension and sensing sleeve 'B' dimension. Additional nose adapter bushing lengths are available.
10. The stroke can be altered by changing the lengths of the adjusting nut. If alterations are required in excess of the maximum adjustment, the adjusting bushing must be changed accordingly. Additional lengths are available.
11. Manufactured as required.

BUSHING O.D. DRILL PLATE HOLE ASSEMBLY NO.	MOTOR KELLER SERIES HELOX SERIES	MAX. STROKE	A SPINDLE LENGTH	B SLEEVE LENGTH	C HOUSING LENGTH	D ADAPTER FIXTURE	E SPINDLE INSIDE ADAPTER	F ADJUSTMENT NUT	H ADJUSTMENT NUT OVERALL	I DWELL SPINDLE ADAPTER ASSY	L LENGTH OF SENSOR TO FIXTURE	MAX. CAPACITY
.750 UDB-756172A-4-22-.750	QCQ-C2AA QCQ-B2 ZT802 UDB-A22000 UDB-A520000	3.0	3.4 BRONZE BUSHING .500 O.D.	2.4 .500 I.D. .625 O.D.	7.4 ALUM RED	1.5	1.0	.50	.75	3.6	8.9	✶3/16 GP-1, 2 ✶1/4 GP-1, 2
.875 UDB-756172A-5-23-.875	QCQ-C2AA QCQ-B2 ZT812 UDB-A23000 UDB-A530000	3.0	3.4 BRONZE BUSHING .687 O.D.	2.4 .687 I.D. .781 O.D.	7.4 ALUM RED	1.5	1.0	.50	.75	3.6	8.9	3/16 GP-1, 2, 3 1/4 GP-1, 2 ✶5/16 GP-1, 2
1.125 UDB-756172A-5-23-1.125	QCQ-C2AA QCQ-B2 ZT812 UDB-A23000 UDB-A530000	3.0	3.4 BRONZE BUSHING .875 O.D.	2.4 .875 I.D. 1.00 O.D.	7.4 ALUM RED	1.5	1.0	.50	.75	3.6	8.9	1/4 GP-1, 2, 3 5/16 GP-1, 2, 3
1.250 UDB-756172A-8-24-1.250	QCQ-C2AA QCQ-B2 ZT812 UDB-A24000 UDB-A540000	3.0	3.4 BRONZE BUSHING .875 O.D.	2.4 .875 I.D. 1.062 O.D.	7.4 ALUM RED	1.5	1.0	.50	.75	3.6	8.9	1/4 GP-1, 2, 3, 4 5/16 GP-1, 2, 3,4 3/8 GP-1, 2, 3,4 7/16 GP-1, 2, 3⮝, 4⮝ ✶1/2 GP-1
1.375 UDB-756172A-8-24-1.375	QCQ-C2AA QCQ-B2 ZT812 UDB-A24000 UDB-A540000	3.0	3.4 BRONZE BUSHING 1.00 O.D.	2.4 1.000 I.D. 1.187 O.D.	7.4 ALUM RED	1.5	1.0	.50	.75	3.6	8.9	1/4 GP-1, 2, 3, 4 5/16 GP-1, 2, 3,4 3/8 GP-1, 2, 3⮝, 4⮝ ✶1/2 GP-1, 2
2.000 UDB-756172A-10-25-2.000	QCQ-C2AA ZT812 UDB-A25000 UDB-A550000	3.2	3.75 BRONZE BUSHING 1.500 O.D.	2.75 1.500 I.D. 1.750 O.D.	8.2 ALUM RED	1.5 D[1] 2.437	1.0	.50	.75	3.6	9.7	1/2 GP-1, 2, 3⮝, 4⮝ 9/16 GP-1, 2⮝, 3⮝ 5/8 GP-1-AR-BR
2.375 UDB-756172A-14-26-2.375	QCQ-C2AA UDB-A26000 UDB-A560000	4.0	3.75 BRONZE BUSHING 1.500 O.D.	2.75 1.500 I.D. 1.750 O.D.	8.7 ALUM RED	1.5 D[1] 2.437	1.0	.50	.75	3.6	10.2	1/2 GP-1, 2, 3,4 9/16 GP-1, 2, 3 5/8 GP-1, 2⮝, 3⮝ ✶3/4 GP-1 ✶7/8 GP-1
RIGHT ANGLE SENSORS FOR COUNTERSINK ONLY												
1.250 UDB-756162A-6-24-1.250	QCQ-C2AA UDB-A24000 UDB-A540000	1.0	3.4 BRONZE BUSHING .750 O.D.	2.4 .875 I.D. 1.062 O.D.	5.4 ALUM RED	1.5	1.0	.50	.75	3.6	6.9	1/4 C'SINK 5/16 ✶3/8
1.375 UDB-756162A-6-24-1.375	QCQ-C2AA UDB-A24000 UDB-A540000	1.0	3.4 BRONZE BUSHING 1.125 O.D.	2.4 .875 I.D. 1.188 O.D.	5.4 ALUM RED	1.5	1.0	.50	.75	3.6	6.9	1/4 C'SINK 5/16 ✶3/8

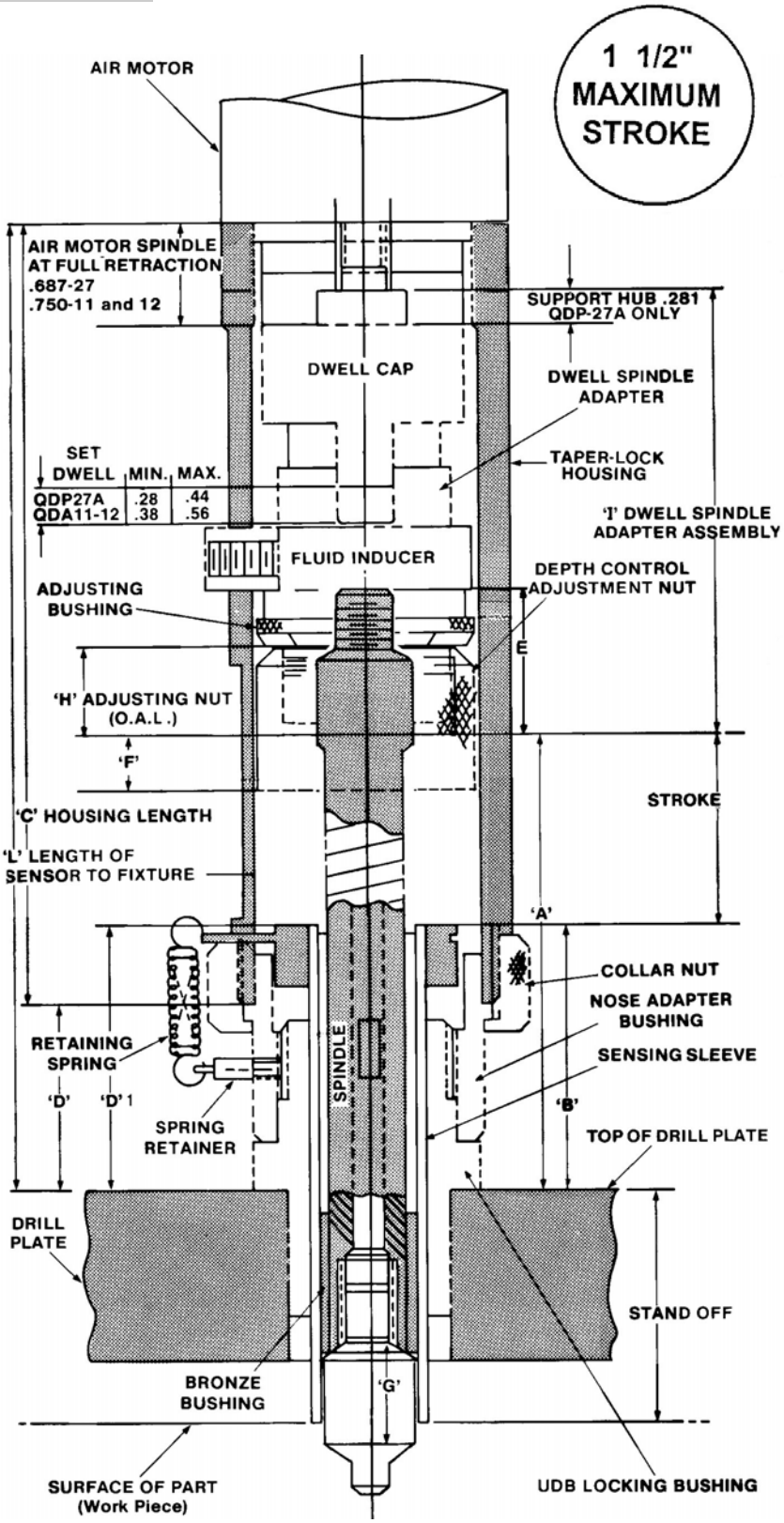
✶ O.D. Reduced ⮝ Alter Length Manufactured as Required.

Taper Lock
Super Sensors

UNITED Countersink Super Sensor Systems

COUNTERSINK SUPER SENSORS

Use with ARO Quackenbush, Rockwell and Zephyr Motors

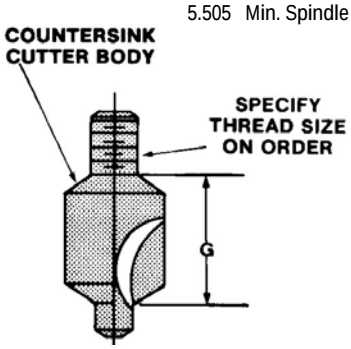


DETERMINING LENGTH
To determine lengths of sensing sleeves and spindles.

EXAMPLE: QDA 12 Motor 1/2" cutter Group 3 AR with 2-5/8 standoff

SPINDLE
Deduct cutter body length 'G' from standoff (2.625). Add the 'A' (4.0) spindle dimension in the QDA 12 column block to the result of standoff minus 'G' (1.505) for a minimum spindle length of (5.505).
SENSING SLEEVE
Add the standoff (2.625) to the 'B' (3.0) dimension for (5.625) minimum sleeve length.

SENSING SLEEVE	SPINDLE
2.625 Standoff	2.625 Standoff
3.00 'B' dimension	1.12 'G' dimension
5.625 Min. Sleeve	1.505
	4.0 'A' dimension
	5.505 Min. Spindle



Full Scale Charts are available on request.

Taper Lock Super Sensor Systems

Ordering Countersink Super Sensors

COUNTERSINK SUPER SENSORS

ORDERING EXAMPLE								
BASE NO.	LOCK SERIES HELOX OR KELLER	FIXTURE HOLE	STAND OFF	SENSING SLEEVE I.D.	SENSING SLEEVE O.D.	LENGTH SENSING SLEEVE	SPINDLE LENGTH	SERIES CUTTER
UDB-756162	K-24	1.375	2.625	1.125	1.250	5.625	6.225	8 –3AR

1. All dimensions listed are with motor spindle fully extended and depth control adjustment nut in pre-adjusted position.
2. 'A' and 'B' dimensions have been increased by 1/4" to assure adequate motor stroke for dwell and to compensate for standoff tolerances.
3. Available stroke for retracting spindle reduces as 'A' and 'B' dimensions increase.
4. Sleeve length must be sufficient so spindle guide will remain inside sleeve when cutter is fully retracted. If spindle guide is not inside sleeve at start of cut, coolant loss will occur.
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6. Capacities noted are for steel or titanium. Larger sizes can be accommodated for aluminum within stroke and sleeve/bushing diameter limitations.
7. When cutter dimension is added to spindle length, the sleeve-spindle relationship must be within reference 'E' and within the 'F' adjustment.
8. To determine sensing sleeve and spindle length, know your standoff and cutter dimensions.
9. Standoff can also be altered by changing the length of the nose adapter bushing. Changes in this component will alter the lengths of the spindle 'A' dimension and sensing sleeve 'B' dimension. Additional nose adapter bushing lengths are available.
10. The stroke can be altered by changing the lengths of the adjusting nut. If alterations are required in excess of the maximum adjustment, the adjusting bushing must be changed accordingly. Additional lengths are available.
11. UDB-756172 sensors for QDA 12 have a longer stroke and will adapt to the QDA 13 motor for longer cutters.

BUSHING O.D. DRILL PLATE HOLE ASSEMBLY NO.	MOTOR KELLER SERIES HELOX SERIES	MAX. STROKE	A SPINDLE LENGTH	B SLEEVE LENGTH	C HOUSING LENGTH	D ADAPTER FIXTURE	E SPINDLE INSIDE ADAPTER	F ADJUSTMENT IN NUT	H ADJUSTMENT NUT OVERALL	I DWELL SPINDLE ADAPTER ASSY	L LENGTH OF SENSOR TO FIXTURE	MAX. CAPACITY
.875 UDB-756167-5-23-.875	QDP 27A UDB-A23000 UDB-A530000	1.0	3.6 BRONZE BUSHING .687 O.D.	2.6 .687 I.D. .781 O.D.	6.2 ALUM BLUE	1.68	1.0	.50	.75	3.8	7.88	3/16 GP-1, 2, 3 1/4 GP-1, 2 ✶5/16 GP-1, 2
1.125 UDB-756167-5-23-1.125	QDP 27A UDB-A23000 UDB-A530000	1.0	3.6 BRONZE BUSHING .875 O.D.	2.6 .875 I.D. 1.00 O.D.	6.2 ALUM BLUE	1.68	1.0	.50	.75	3.8	7.88	1/4 GP-1, 2, 3 5/16 GP- 1, 2, 3
1.000 UDB-756167-4-24-1.000	QDP 27A UDB-A24000 UDB-A540000	1.0	3.6 BRONZE BUSHING .750 O.D.	2.6 .750 I.D. .875 O.D.	6.2 ALUM BLUE	1.68	1.0	.50	.75	3.8	7.88	1/4 GP-1, 2, 3 ✶5/16 GP- 1, 2, 3
1.250 UDB-756167-5-24-1.250	QDP 27A UDB-A24000 UDB-A540000	1.0	3.6 BRONZE BUSHING .750 O.D.	2.6 .750 I.D. 1.00 O.D.	6.2 ALUM BLUE	1.68	1.0	.50	.75	3.8	7.88	1/4 GP-1, 2, 3 ✶5/16 GP- 1, 2, 3
1.375 UDB-756167A-6-24-1.375	QDP 27A UDB-A24000 UDB-A540000	1.0	3.6 BRONZE BUSHING 1.00 O.D.	2.6 1.00 I.D. 1.125 O.D.	6.2 ALUM BLUE	1.68	1.0	.50	.75	3.8	7.88	5/16 GP- 1, 2, 3 3/8 GP-1, 2
1.250 UDB-756161-5-24-1.250	QDP 11 UDB-A24000 UDB-A540000	1.0	4.0 BRONZE BUSHING .750 O.D.	3.0 .750 I.D. 1.00 O.D.	6.2 ALUM GOLD	2.0	1.0	.50	.75	3.8	8.2	1/4 GP-1, 2, 3 ✶5/16 GP-1, 2, 3
1.375 UDB-756161-9-24-1.375	QDP 11 UDB-A24000 UDB-A540000	1.0	4.0 BRONZE BUSHING 1.125 O.D.	3.0 1.125 I.D. 1.250 O.D.	6.2 ALUM GOLD	2.0	1.0	.50	.75	3.8	8.2	1/4 GP-3 5/16 GP-3 3/8 GP-1, 2, 3, 4 7/16 GP-1, 2 1/2 GP-1, 2
2.000 UDB-756161-12-25-2.000	QDP 11 UDB-A24000 UDB-A540000	1.0	4.2 BRONZE BUSHING 1.750 O.D.	3.2 1.750 I.D. 1.875 O.D.	6.2 ALUM GOLD	2.00 D[1] 3.00	1.0	.50	.75	3.8	8.2	9/16 GP-1 5/8 GP-1 3/4 GP-1
1.375 UDB-756162-9-24-1.375	QDP 12 UDB-A24000 UDB-A540000	1.0	4.0 BRONZE BUSHING 1.125 O.D.	3.0 1.125 I.D. 1.250 O.D.	6.2 ALUM GREEN	2.0	1.0	.50	.75	3.8	8.2	7/16 GP- 3 1/2 GP-3 ✶9/16 GP-1, 2
2.000 UDB-756162-14-25-2.000	QDA 12 UDB-A25000 UDB-A550000	1.0	4.2 BRONZE BUSHING	3.2 1.750 I.D. 1.875 O.D.	6.2 ALUM GREEN	2.00 D[1] 3.00	1.0	.50	.75	3.8	8.2	9/16 GP-1, 2 5/8 GP-1, 2 3/4 GP-1, 2 7/8 GP-1, 2

✶ Alter O.D. Manufactured as Required.

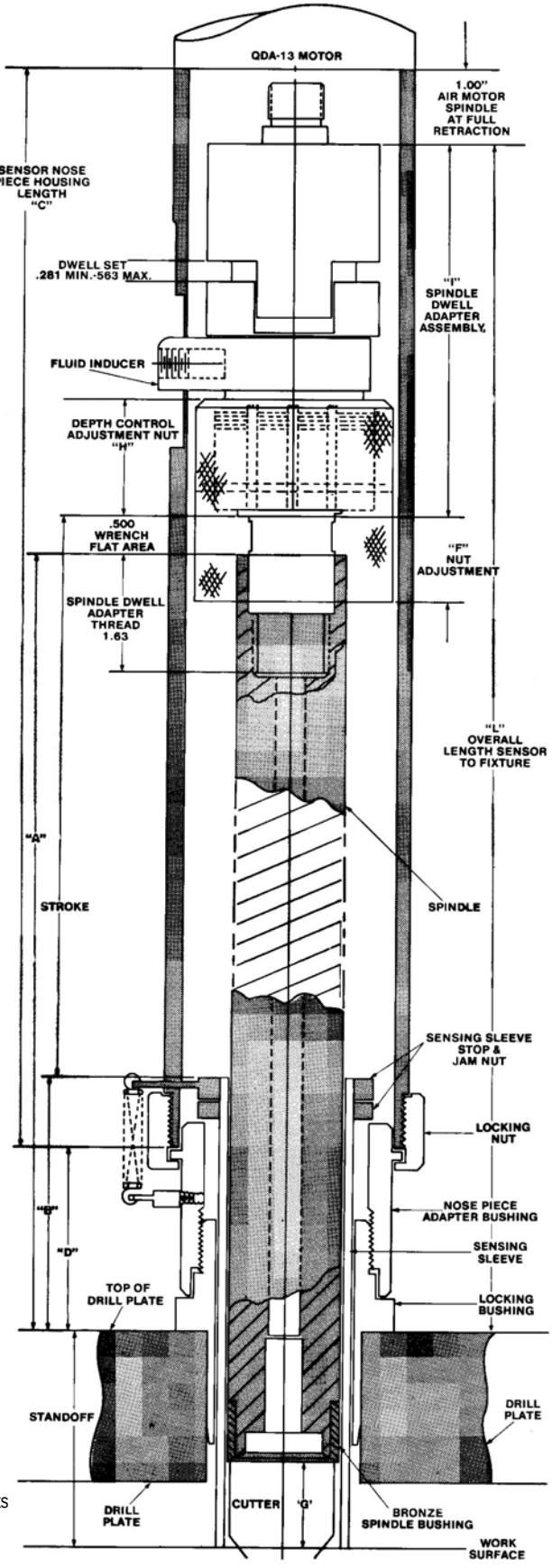
Taper Lock
QDA 13 Sensors

UNITED Taper Lock Sensor Systems

TAPER LOCK
QDA 13 SENSORS

Use ARO, Quackenbush with QDA 13 Taper Lock Sensors.

6 3/4" STROKE

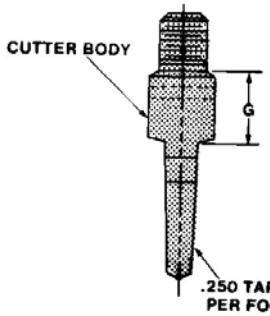


DETERMINING LENGTH
To determine lengths of sensing sleeves and spindles.

EXAMPLE: QDA 13 Motor 3/4" cutter Group 3 AR with 2-5/8 standoff

SPINDLE
Deduct cutter body length 'G' (2.00) from standoff (2.625).
Add the 'A' (3.2) spindle dimension in the QDA 13 column block to the result of standoff minus 'G' (.625) for a minimum spindle length of (3.825).
SENSING SLEEVE
Add the standoff (2.625) to the 'B' (3.7) dimension for (6.325) minimum sleeve length.

SENSING SLEEVE	SPINDLE
2.625 Standoff	2.625 Standoff
3.70 'B' dimension	2.00 'G' dimension
6.325 Min. Sleeve	.625
	3.2 'A' dimension
	3.825 Min. Spindle



Full Scale Charts are available on request.

Taper Lock QDA 13 Sensor Systems

Ordering QDA 13 Sensors

TAPER LOCK
QDA 13 SENSORS

ORDERING EXAMPLE								
BASE NO.	LOCK SERIES HELOX OR KELLER	FIXTURE HOLE	STAND OFF	SENSING SLEEVE I.D.	SENSING SLEEVE O.D.	LENGTH SENSING SLEEVE	SPINDLE LENGTH	SERIES CUTTER
UDB-756173	K-26	3.375	2.625	1.721	1.922	6.325	3.825	13 –3AR

1. All dimensions listed are with motor spindle fully extended and depth control adjustment nut in pre-adjusted position.
2. 'A' and 'B' dimensions have been increased by 1/4" to assure adequate motor stroke for dwell and to compensate for standoff tolerances.
3. Available stroke for retracting spindle reduces as 'A' and 'B' dimensions increase.
4. Sleeve length must be sufficient so spindle guide will remain inside sleeve when cutter is fully retracted. If spindle guide is not inside sleeve at start of cut, coolant loss will occur.
5. For larger diameters, if the cutter length exceeds available stroke of unit, cutters must be shortened by tool design.
6. Capacities noted are for steel or titanium. Larger sizes can be accommodated for aluminum within stroke and sleeve/bushing diameter limitations.
7. When cutter dimension is added to spindle length, the sleeve-spindle relationship must be within reference 'E' and within the 'F' adjustment.
8. To determine sensing sleeve and spindle length, know your standoff and cutter dimensions.
9. Standoff can also be altered by changing the length of the nose adapter bushing. Changes in this component will alter the lengths of the spindle 'A' dimension and sensing sleeve 'B' dimension. Additional nose adapter bushing lengths are available.
10. The stroke can be altered by changing the lengths of the adjusting nut. If alterations are required in excess of the maximum adjustment, the adjusting bushing must be changed accordingly. Additional lengths are available.
11. UDB-756172 sensors for QDA 12 have a longer stroke and will adapt to the QDA 13 motor for longer cutters.

BUSHING O.D. DRILL PLATE HOLE ASSEMBLY NO.	MOTOR KELLER SERIES HELOX SERIES	MAX. STROKE	A SPINDLE LENGTH	B SLEEVE LENGTH	C HOUSING LENGTH	D BUSHING ADAPTER TO FIXTURE	F ADJUSTMENT IN NUT	H ADJUSTMENT NUT OVERALL	I SPINDLE DWELL ASSY LENGTH	L LENGTH OF SENSOR TO FIXTURE	MAX. CAPACITY
***UNITED* Sensors are delivering Precision Tapered Holes at McDonnell-Douglas — Now Boeing.**											
2.000 UDB-756173-10-25-2.000	QDP 13 UDB-A25000 UDB-A550000	6.8	3.2 BRONZE BUSHING 1.500 O.D.	3.70 1.500 I.D. 1.750 O.D.	14.12	2.38	1.00	STD 1.500 ALSO AVAILABLE 2.25 4.50	5.00	16.50	9/16 GP-2-AR 5/8 GP-2, 3-AR SHORTEN
***UNITED* Sensors are providing Precision Countersinks at AVCO.**											
2.375 UDB-756173-18-26-2.375	QDP 13 UDB-A26000 UDB-A560000	6.7	3.32 BRONZE BUSHING 2.125 O.D.	3.82 2.125 I.D. 2.375 O.D.	14.12	2.50	1.00	1.50	5.00	16.62	✶1/8 GP-2-BR SHORTEN
***UNITED* Sensors are controlling Tapered Holes Tolerances at North American Rockwell — Now Boeing.**											
2.375 UDB-756173A-18-26-2.375	QDP 13 UDB-A26000 UDB-A560000	6.7	3.32 BRONZE BUSHING 2.062 O.D.	3.82 2.062 I.D. 2.250 O.D.	14.12	2.50	1.00	1.50	5.00	16.62	3/4 GP-1, 2-AR 7/8 GP-2-AR 1" GP-2-AR 1" GP-3-BR
***UNITED* Sensors are drilling Exact Depths at LTV.**											
2.375 UDB-756173-14-26-2.375	QDP 13 UDB-A26000 UDB-A560000	6.8	3.30 BRONZE BUSHING 1.721 O.D.	3.70 1.721 I.D. 1.922 O.D.	14.12	2.38	1.00	1.50	5.00	16.50	3/4 GP-2, 3-AR SHORTEN 7/8 GP-1-AR O.D. REDUCED 7/8 GP-1, 2, 3-BR SHORTEN

✶ O.D. REDUCED

Manufactured as Required.