

Adapters, Air Flow Control, Nose Pieces and Reducers

Adapters-Air Flow
Nosepieces-Reducers



IN-LINE VACUUM NOSEPIECES Pg O-9



COOLANT FEET Pg O-23



RIGHT ANGLE VACUUM NOSEPIECES Pg O-8



TYPE 1 AIR FLUID CHUCKS Pg O-22



TYPE IV AIR FLUID CHUCKS Pg O-24



TYPE VI AIR FLUID CHUCKS Pg O-25



ZEPHYR NOSEPIECES Pg O-16



DOUBLE TAPER COLLETS Pg O-24



TYPE II COOLANT STYLE NOSEPIECES Pg O-13



3-JAW CHUCKS Pg O-24



MALE MORSE TAPER ADAPTERS Pg O-26



ADJUSTABLE NOSEPIECES Pg O-11



ADAPTERS Pg O-28



FEMALE MORSE TAPER ADAPTERS Pg O-26



EXTENDED RANGE NOSEPIECES Pg O-20



ADAPTERS Pg O-27



ADAPTERS Pg O-14



INDEXING ADAPTERS Pg O-10

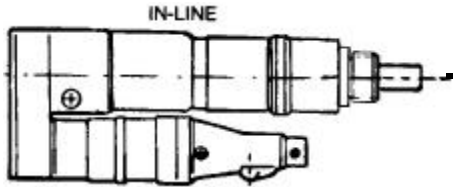


EXTENDED RANGE ADAPTERS Pg O-21

Selection Guide
Pages O-2 & O-3

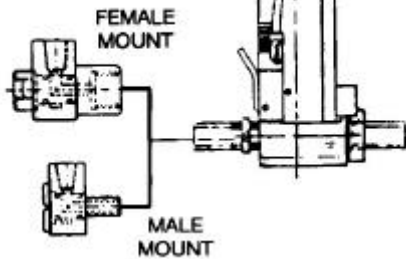
Guide for Air Motor to Fixtures

**POSITIVE FEED
MOTORS**



**SWIVEL COOLANT
INDUCERS**

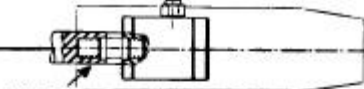
Page O-25



CHUCKS

FEMALE THREAD COOLANT CHUCK

Page O-22



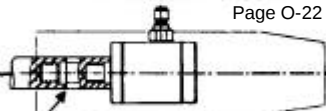
**SPINDLE
EXTENSION
(MALE)**

THREE JAW CHUCK

Page O-24

MALE THREAD COOLANT CHUCK

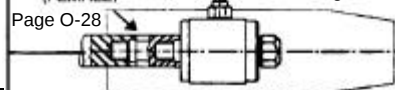
Page O-22



**SPINDLE
EXTENSION
(FEMALE)**

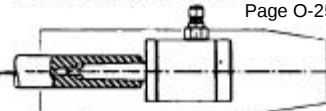
COLLET TYPE COOLANT CHUCK

Page O-25



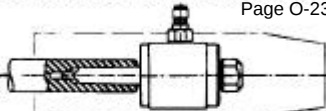
M.T. SHANK COOLANT CHUCK

Page O-25



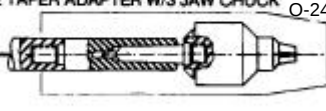
M.T. SHANK COLLET TYPE COOLANT CHUCK

Page O-23



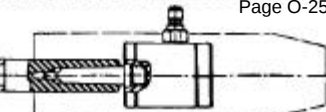
MORSE TAPER ADAPTER W/3 JAW CHUCK

Page O-24

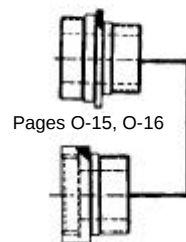


MORSE TAPER ADAPTER W/COOLANT CHUCK

Page O-25



**MOTOR TO NOSEPIECE
ADAPTERS**



Pages O-15, O-16

NOSEPIECES

STD - COOLANT



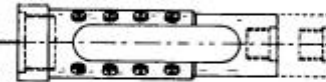
SEE NOSEPIECE INDEX Page O-4

STANDARD



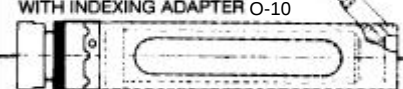
ADJUSTABLE

Page O-11



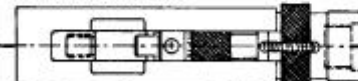
WITH INDEXING ADAPTER

Page O-10



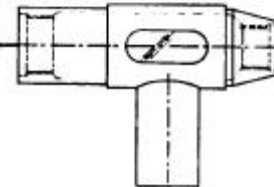
DEPTH SENSING UNIT

See Pages Q8-Q22



VACUUM STYLE

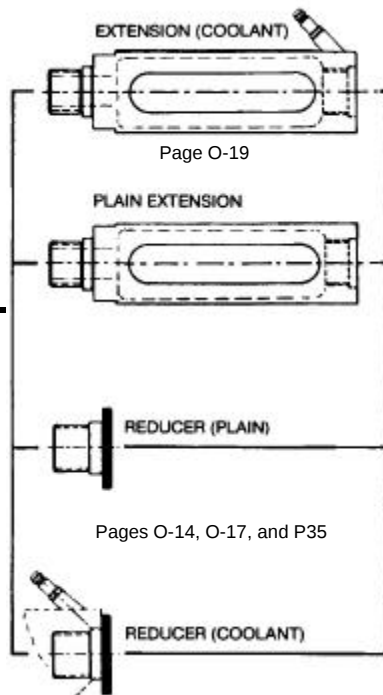
Pages O-8, O-9



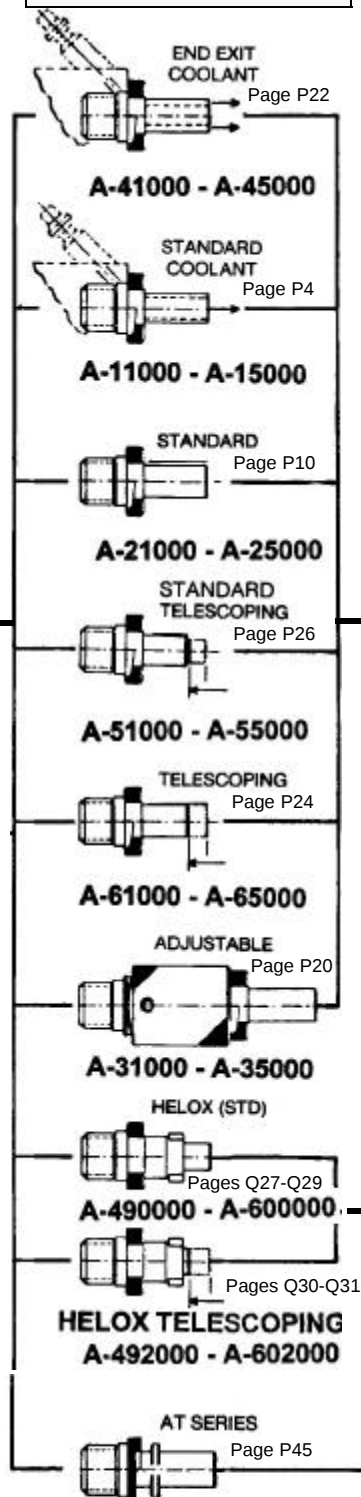
Relationships Between Parts View

Relationship View
Pages O-2 & O-3

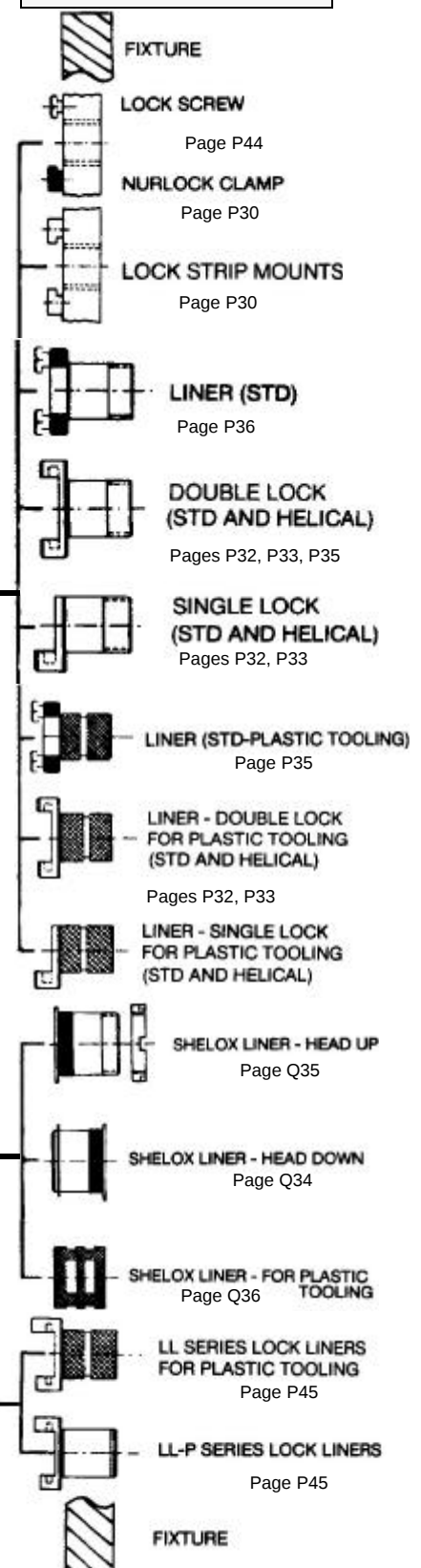
NOSEPIECE ATTACHMENTS



ADAPTER TIPS



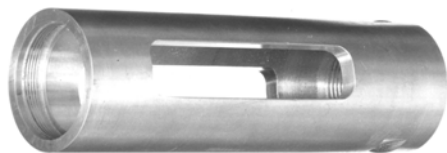
LOCKING DEVICES AND LINERS



All items can be found in
Sections O and P.

Aluminum Nosepiece Index

Precision Aluminum Nosepieces Index



TYPE II REGULAR STYLE



TYPE II COOLANT STYLE

REGULAR STYLES...FOR MOST MAKES AND MODELS OF POSITIVE FEED DRILL MOTORS

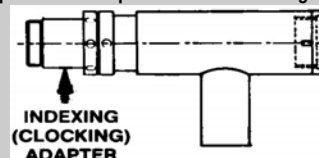
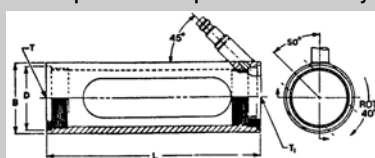
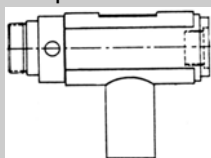
TYPE I	QUACKENBUSH TYPE	PAGE O-12	Aluminum Nosepieces will be supplied unless otherwise specified.
TYPE II	QUACKENBUSH TYPE	PAGES O-12 O-13	If Steel Nosepieces are required, add suffix 'S' to Part No.
TYPE III	QUACKENBUSH TYPE	PAGE O-13	Add 'C' to Part No. for Coolant Style.
TYPE IV	QUACKENBUSH TYPE	PAGE O-13	Add 'V' to Part No. for Vacuum Style.
TYPE V	QUACKENBUSH TYPE	PAGE O-14	Add 'I' to Part No. for Indexing Adapter.
TYPE VI	ARO TYPE	PAGE O-15	Nosepieces work with Nurlock Adapters.

All Nosepieces can be provided with Vacuum Pick-up.

All Nosepieces can be provided Coolant Style.

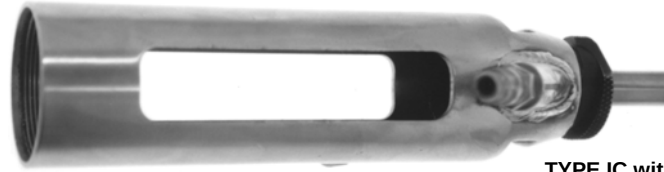
All Nosepieces can be provided with Indexing Adapter.

See Pages
O-8 thru O-10.



Precision Regular & Coolant Nosepieces

Aluminum
Nosepiece Index



TYPE IC with Nurlock Adapter

REGULAR STYLES...FOR MOST MAKES AND MODELS OF POSITIVE FEED DRILL MOTORS

Aluminum Nosepieces will be supplied unless otherwise specified.	PAGES O-15 O-18	GARDNER-DENVER & ARO TYPE	TYPE VII
If Steel Nosepieces are required, add suffix 'S' to Part No.	PAGE O-16	ZEPHYR TYPE	TYPE VIII
Add 'C' to Part No. for Coolant Style.	PAGE O-16	ZEPHYR TYPE	TYPE IX
Add 'V' to Part No. for Vacuum Style.	PAGE O-16	ZEPHYR TYPE	TYPE X
Add 'I' to Part No. for Indexing Adapter.	PAGE O-18	GARDNER-DENVER TYPE	TYPE XI
Nosepieces work with Nurlock Adapters.	PAGE O-17	ZEPHYR TYPE	TYPE XII
All Nosepieces can be provided with Vacuum Pick-up. All Nosepieces can be provided Coolant Style. All Nosepieces can be provided with Indexing Adapter. INDEXING (CLOCKING) ADAPTER See Pages O-8 thru O-10.			



Mr. Ray Culver (Lockheed-Georgia) shown setting up a right angle motor with Portable Gun Drilling Accessories.

You can achieve these results with
**UNITED PORTABLE GUN DRILLING
ACCESSORIES:**

- **DEEP HOLE DRILLING**
- **CLOSE TOLERANCE HOLES**
- **CHIP COLLECTION**
- **SINGLE OPERATION, FINISHED HOLES**
- **FULL BEARING FASTENERS**
- **CRITICAL SURFACE FINISHES**

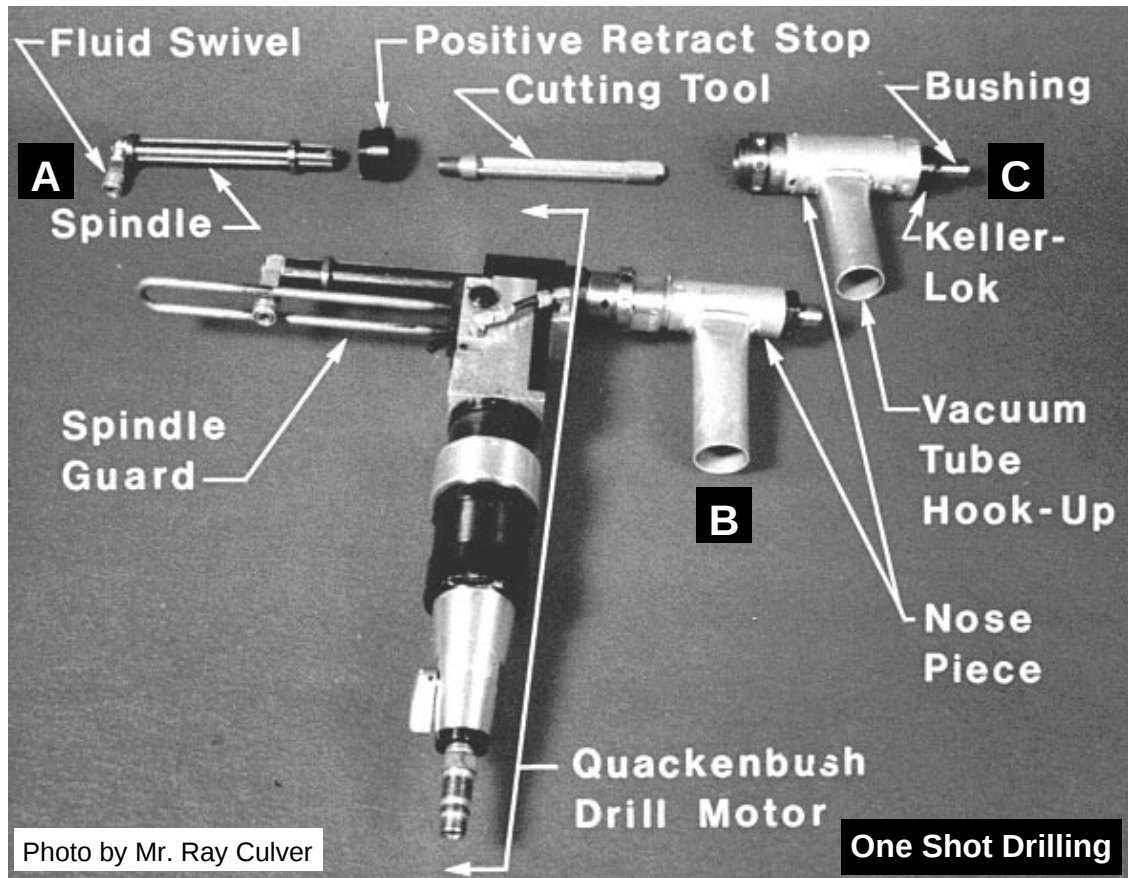
If you would like more information about portable gun drilling, please call **UNITED**. We can provide related precision tooling products.

- ❶ Deep small diameter holes can now be gun drilled using portable positive-feed drill units.
- ❷ Concentric close tolerance holes with mirror-like finishes are attainable with a 'one-shot' operation.
- ❸ Gun drilling replaces conventional fastener hole preparation operations, such as pre-drilling, core drilling, reaming, honing and lapping, while consistently producing quality holes.
- ❹ With the newly developed tooling shown on the following pages, **UNITED** has helped make portable gun drilling a successful system.
- ❺ **UNITED** has worked closely with Mr. Ray Culver, Senior Tool Engineer at Lockheed-Georgia in the development of portable gun drilling. In addition, **UNITED** has assisted Boeing and others in their gun drilling development programs.

UNITED Gun Drilling

One-Shot Gun Drilling

- **A**
Illustrates one of the many styles of Air-Fluid Chucks and Fluid Swivel Inducers manufactured by UNITED.
- **B**
Shows one style of UNITED's Vacuum Nosepieces.
- **C**
Displays the Telescopic Bushing concept. UNITED manufactures three styles: Two Nurlock variations plus the Helox Telescopic series.



"One Shot Drilling" Concept Explains How Gun Drills Work

❶ Coolant and Air mixture enters the chuck or swivel inducer at 100 PSI and is directed through the gun drill's coolant port. The high pressure forces the chips and coolant up the single flute of the gun drill into the nose piece, where they are vacuumed away into the collection device.

Popular coolants/lubricants include Freon, Boelube, Acrulube LPS or various mixtures of same. Air by itself has also proven feasible. UNITED's chucks are designed to maintain pressure and avoid leaks.

❷ Vacuum type nosepieces are available in many configurations. These include styles for both straight and right-angle drill motors, with Indexing (clocking) devices, viewing ports, fluid chuck guides and multi-position vacuum hose hook-up positions.

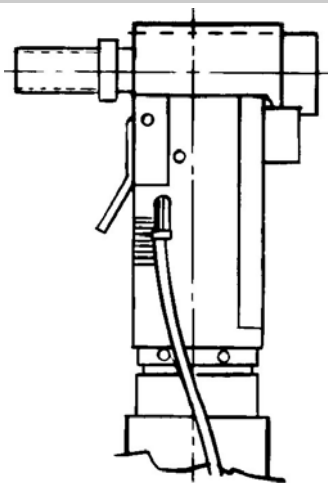
❸ One of the most essential requirements for successful portable gun drilling is bushing contact with the workpiece. Without this positive contact, coolant pressure is lost, and chip entrapment can occur.

UNITED's Telescoping Bushings insure that the necessary positive sealing contact is present. All items in the three series manufactured are rated at 1/2" travel, with 1/8" spring pressure pre-load. Actual travel on larger sizes is greater than 1/2."

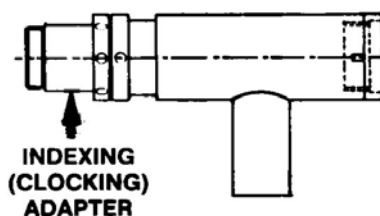
Vacuum Nosepieces for Right Angle Motors

For Right Angle Motors

RIGHT ANGLE POSITIVE FEED DRILL MOTOR

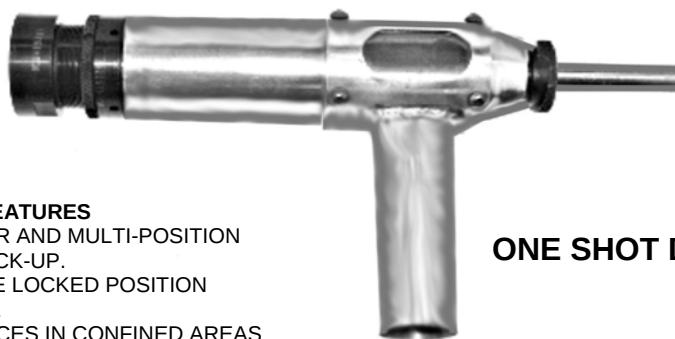
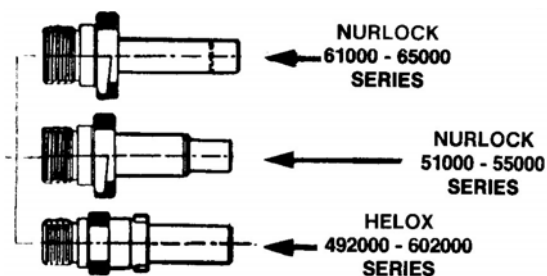


NOSEPIECE



INDEXING
(CLOCKING)
ADAPTER

TELESCOPING BUSHINGS

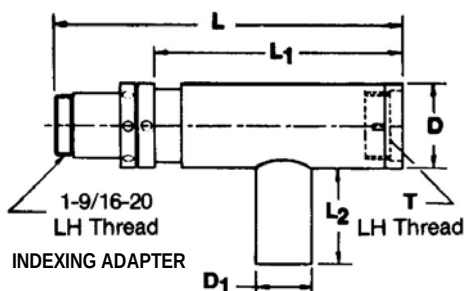


FEATURES

- INDEXING ADAPTER AND MULTI-POSITION VACUUM PICK-UP.
- PROVIDES INFINITE LOCKED POSITION SELECTION.
- INDEXES NOSEPIECES IN CONFINED AREAS WITHOUT ROTATING DRILL MOTOR.

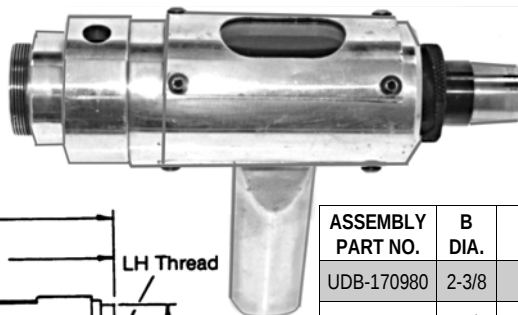
ONE SHOT DRILLING!

STYLE II



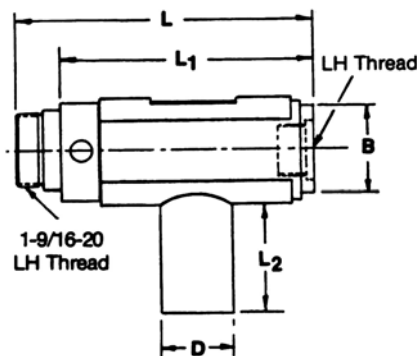
ASSEMBLY PART NO.	D DIA.	T LH THREAD	L OAL	L ₁ LENGTH	D ₁ DIA.	L ₂ LENGTH	ADAPTER TIP SERIES	INDEXING ADAPTER	FOR DRILL MOTORS
UDB-172301	2	1-1/4 - 12	6.55	4.75	1-1/2	4	23000	UDB-172310	ZEPHYR #AT 837 QUACKENBUSH QCQ-C2AA (158 QDA-RA-SU)
UDB-172302	2	1-1/2 - 12	6.55	4.75	1-1/2	4	24000	UDB-172310	
UDB-172303	2	1-1/4 - 12	6.93	4.75	1-1/2	4	23000	UDB-172311	
UDB-172304	2	1-1/2 - 12	6.93	4.75	1-1/2	4	24000	UDB-172311	
UDB-172305	2	1-1/4 - 12	5.19	4.12	1-1/2	4	23000	UDB-172312	
UDB-172306	2	1-1/2 - 12	5.19	4.12	1-1/2	4	24000	UDB-172312	

STYLE V



DESIGNED TO FIT ZEPHYR AND QUACKENBUSH
TYPES WITH BUILT-IN CHIP VIEW WINDOW.

FOR INDEXING ADAPTER, ADD 'I' TO PART NO.



ASSEMBLY PART NO.	B DIA.	L OAL	L ₁ LENGTH	T LH THREAD	D DIA.	L ₂ LENGTH	ADAPTER TIP SERIES	FOR DRILL MOTORS
UDB-170980	2-3/8	6	5.13	1-1/2-12	1-1/2	4	24000	158 QDA-RA-SU
UDB-170982	2-3/8	6.87	6.00	1-14	1-1/2	4	22000	
UDB-170988	2-3/8	6.87	6.00	1-1/4-12	1-1/2	4	23000	
UDB-170989	2-3/8	6.87	6.00	1-1/2-12	1-1/2	4	24000	
UDB-170990	2-3/8	6.5	5.63	1-1/2-12	1-1/2	4	24000	
UDB-170991	2-3/8	6.5	5.63	1-1/4-12	1-1/2	4	23000	
UDB-170992	2-3/8	6.5	5.63	1-14	1-1/2	4	22000	

For Straight Drill Motors

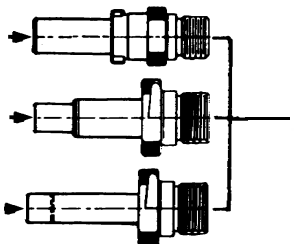
Vacuum Nosepieces for In-Line Motors

TELESCOPING BUSHINGS

HELOX SERIES:
492000-60200
Page Q30

NURLOCK SERIES:
51000-55000
Page P24

NURLOCK SERIES:
610000-65000
Page P26



VACUUM NOSEPIECE



IN-LINE OR PIGGY BACK



POSITIVE FEED DRILL MOTOR

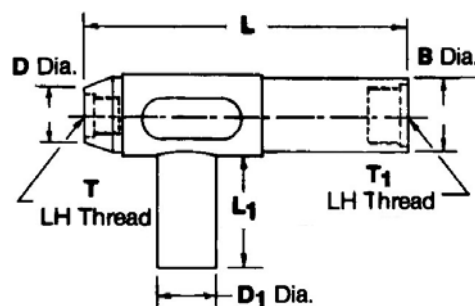
PATENTS APPLIED FOR

"One Shot Drilling"

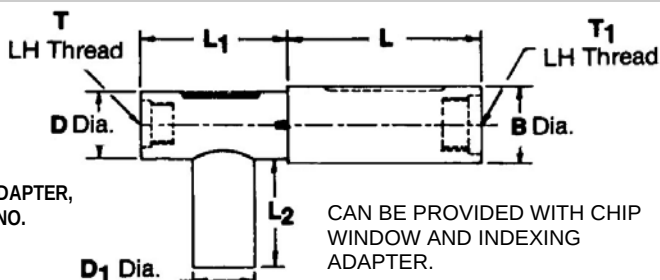
FOR INDEXING ADAPTER,
ADD 'I' TO PART NO.

DESIGNED TO FIT ARO, ROCKWELL AND QUACKENBUSH TYPES

ASSEMBLY PART NO.	B DIA.	T ₁ LH THREAD	D DIA.	T LH THREAD	L OAL	L ₁ LENGTH	D ₁ DIA.	ADAPTER TIP SERIES	FOR DRILL MOTORS
UDB-170935	2	1.825-18	1.69	1-14	7.37	4	1.5	22000	QDP-27/27 APB ROCKWELL 61-PA-PD ARO FP08 & 2
UDB-170937	2	1.825-18	2	1-1/4-12	7.37	4	1.5	23000	
UDB-170938	2	1.825-18	2	1-1/4-12	7.37	4	1.5	24000	
UDB-170943	2	1.825-18	1.69	1-14	6.87	4	1.5	22000	



STYLE I



STYLE III

FOR INDEXING ADAPTER,
ADD 'I' TO PART NO.

CAN BE PROVIDED WITH CHIP
WINDOW AND INDEXING
ADAPTER.

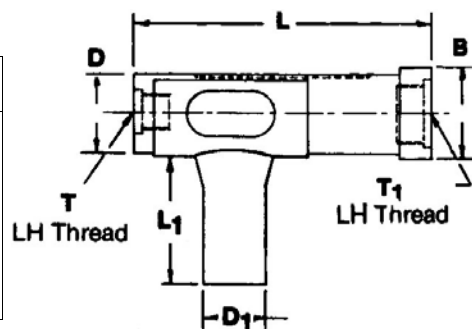
ASSEMBLY PART NO.	B DIA.	T ₁ LH THREAD	D DIA.	T LH THREAD	L OAL	L ₁ LENGTH	D ₁ DIA.	L ₂ LENGTH	ADAPTER TIP SERIES	FOR DRILL MOTORS
UDB-170950	2	1.825-18	1.42	1-14	6	3-1/2	1-1/2	4	22000	QDP-27 QDP-27A QDP-15 ROCKWELL

IN-LINE VACUUM FOR MOTOR

STYLE IV

FOR INDEXING ADAPTER,
ADD 'I' TO PART NO.

ASSEMBLY PART NO.	B DIA.	T ₁ LH THREAD	D DIA.	T LH THREAD	L OAL	L ₁ LENGTH	D ₁ DIA.	ADAPTER TIP SERIES	FOR DRILL MOTORS
UDB-170963	2-1/2	2-1/4 - 20	2-3/8	1-14	9-3/8	4	1-1/2	22000	QDA-11 QDA-12 QCQ-C2AA ROCKWELL ARO
UDB-170964	2-1/2	2-1/4 - 20	2-3/8	1-1/4-12	9-3/8	4	1-1/2	23000	
UDB-170965	2-1/2	2-1/4 - 20	2-3/8	1-1/4-12	9-3/8	4	1-1/2	24000	
UDB-170967	2-1/2	2-1/4 - 20	2-3/8	1-14	9-3/8	4	1-1/2	25000	

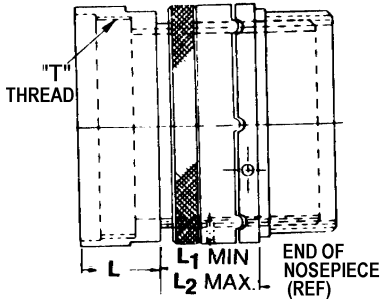
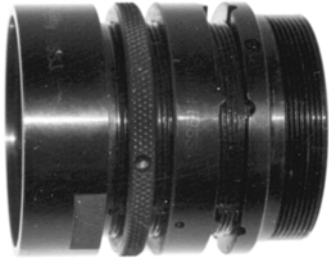


Nosepieces Indexing Adapters

Indexing Adapters

ESSENTIAL FOR EVERY NOSEPIECE IN USE!

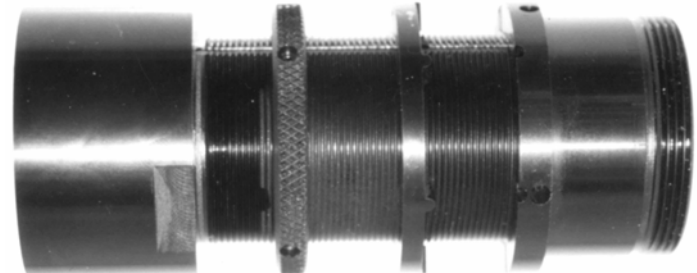
INDEXING ADAPTERS



REPLACEMENT
PARTS USE BASE
NUMBERS PLUS
DETAIL NUMBER
REQUIRED.

PATENTED

ADD SUFFIX 'I' TO ANY
NOSEPIECE IN OUR CATALOG,
AND MATCHING INDEXING
ADAPTER WILL BE INCLUDED.

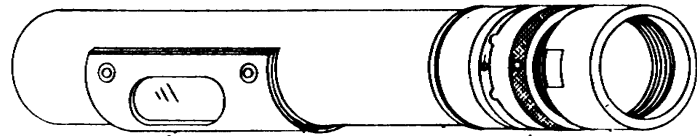


1
MOTOR
ADAPTER

2
CHECK
NUT

3
MALE
INDEXING
RING

4
FEMALE
INDEX
ADAPTER



NOSEPIECE

INDEXING ADAPTER

COOLANT AND AIR LINES ARE NO LONGER A PROBLEM!

Male and Female Threads are Same.

Adjust to desired direction and set Jam Nut. Indexes at 60°, 120°, 180°, 240°, 300° and 360°.

WRENCH FLATS AND KNURLED O.D. FOR EASE OF ATTACHMENT AND ADJUSTMENT. JAM NUT FURNISHED.

PART NO.	T LH THREAD	L	L ₁ MIN	L ₂ MAX	USED ON MOTOR NO.
UDB-415216	3/4 - 16	.62	.87	1.12	(Z) # ZT801 ZT802
UDB-415217	1 - 20	.62	.87	1.12	(Q) # QCQ-B2
UDB-415218	1-1/8 - 16	.62	.87	1.12	(Z) # ZT811 ZT812
UDB-415219	1-7/16 - 18	.62	.87	1.12	ARO # 8245 8345
UDB-415220	1-9/16 - 20	.62	.87	1.12	(Q) # QQC-C2AA 158QGDA-RA
UDB-415221	1-9/16 - 18	.62	.87	1.12	(GD) # MM-6
UDB-415222	1-37/64 - 18	.62	.87	1.12	(Q) # QCA-10
UDB-415223	1-3/4 - 16	.75	1.0	1.25	(GD) # MM-8
UDB-415224	1.825 - 18	.75	1.0	1.25	(Q) # QDP-27 QDP-15

PART NO.	T LH THREAD	L	L ₁ MIN	L ₂ MAX	USED ON MOTOR NO.
UDB-415225	1-29/32 - 20	.75	1.0	1.25	(Z) # ZT822 ZT831 ZT832
UDB-415226	2 - 16	.75	1.0	1.25	ARO # 8255 8355
UDB-415227	2-1/4 - 20	.75	1.0	1.25	(Q) # QDP-11 QDP-12
UDB-415228	2-3/8 - 16	.75	1.0	1.25	ARO # 8660
UDB-415229	2-1/2 - 16	.75	1.0	1.25	ARO # 8265 8365
UDB-415230	2-11/16 - 16	.75	1.0	1.25	(Q) # QDA-13 QDA-14 QDA-16
UDB-415231	2-3/4 - 16	1.0	1.25	1.50	(GD) # MM-13
UDB-415232	2-7/8 - 16	1.0	1.25	1.50	ARO# 8670
UDB-415233	3-5/8 - 16	1.0	1.25	1.50	(GD) # D10

ALLOY STEEL— HEAT TREATED — BLACK OXIDE FINISH

DESIGNED BY BRUCE SCHLIESMAYER AND JOHN CERECEDDES

Adjust and Save

NEARLY 5 INCHES OF TRAVEL!

Adjustable
Nosepiece

OTHER NOSEPIECES can be MANUFACTURED in a SIMILAR MANNER.

ADJUSTABLE NOSE PIECES

Designed to reduce nosepiece inventory and add versatility to set up of air motors.

The UDB-619607 Adjustable Nosepiece fits the QDA-27 drill motor.

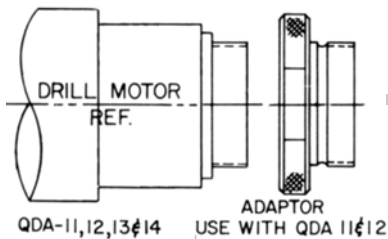
Use UDB-619689 Adjustable Nosepiece Adapter when using a QCQ-C2AA motor.

The UDB-619607 Adjustable Nosepiece also fits Rockwell 61PA-PP and ARO FP08 and 2.

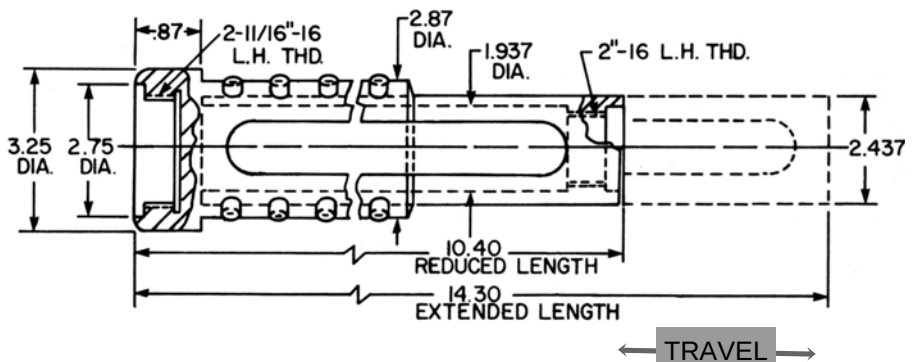
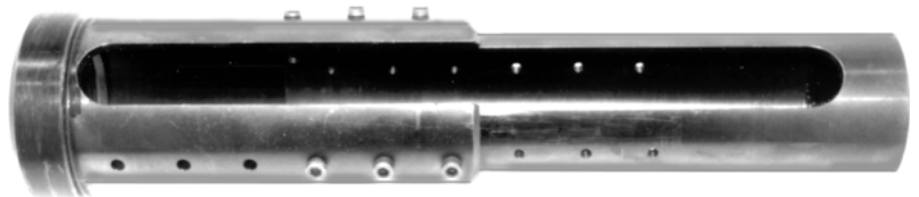
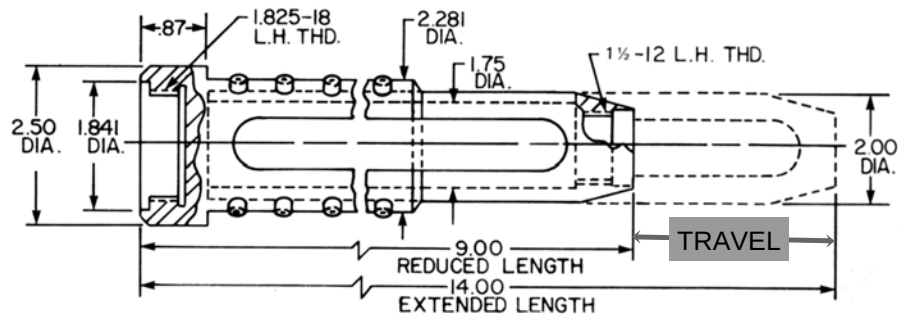
Actual adjustment is from 9" to 14".

The Nosepiece is manufactured from a durable Alloy Ground and Heat Treated with Black Oxide finish.

PART NO.
UDB-619607



PART NO.
UDB-619513



UNITED's Adjustable Nosepieces are designed to fit QDA 27, QCQ-C2AA, QDA 11, QDA 12 and QDA 13.

The UDB-619513 Adjustable Nosepiece adapts directly to the QDA-13, QDA-14 and QDA-16 motors.

Use UDB-619513 Adjustable Nosepiece Adapter when using a QDA-11 motor.

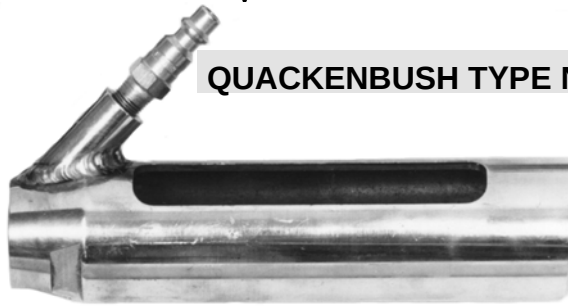
Actual adjustment is from 10-1/2" to 14-1/2".

The Nosepiece is manufactured from a durable Alloy Ground and Heat Treated with Black Oxide finish.

Quackenbush Type Nosepieces

Quackenbush Type Nosepieces

QUACKENBUSH TYPE NOSEPIECES

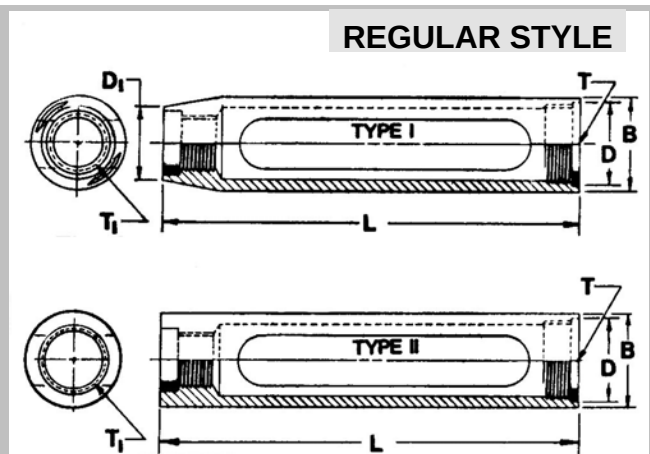
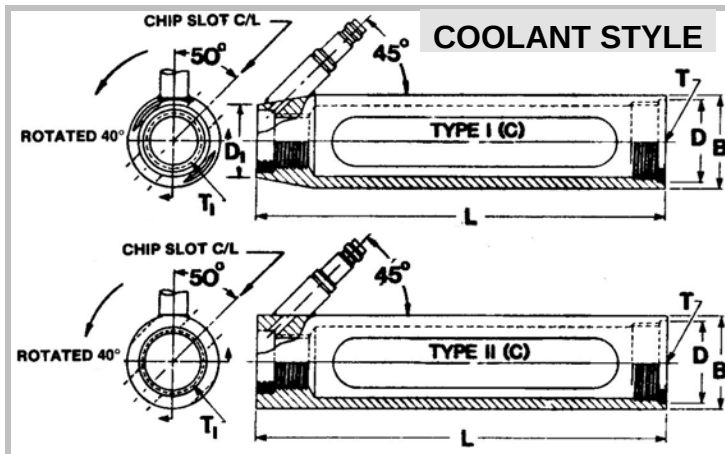


Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

For Coolant Style add 'C' to regular style Part No.

For Indexing style add 'I' to Part No.

For Vacuum style add 'V' to Part No.



PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	D ₁ DIA	L LENGTH	ADAPTER TIP SERIES	TYPE	RIGHT ANGLE MOTOR SERIES	ADAPTERS FOR RT- ANGLE MOTORS
UDB-619143	1-1/4	1-37/64 - 18	1.600	3/4 - 16	1-3/4	1.06	5-1/2	21000	I	15QD-S125	UDB-622401
UDB-619142	1-1/4	1-37/64 - 18	1.600	1 - 14	1-3/4	1.37	5-1/2	22000	I	15QD-S125	FOR
UDB-619271	1-1/4	1-37/64 - 18	1.600	1-1/4 - 12	1-3/4	—	5-1/2	23000	II	15QD-S125	15QDA-RA-SU
UDB-619662	1-1/2	1.825 - 18	1.841	3/4 - 16	2	1.25	5-7/8	21000	I	15QDA-S150	UDB-614244
UDB-619683	1-1/2	1.825 - 18	1.841	1 - 14	2	1.37	5-7/8	22000	I	15QDA-S150	FOR
UDB-619704	1-1/2	1.825 - 18	1.841	1-1/4 - 12	2	1.62	5-7/8	23000	I	15QDA-S150	158QGDA-RA-SU
UDB-619135	2	1-37/64 - 18	1.600	3/4 - 16	1-3/4	1.06	4-3/4	21000	I	15QD-S300	UDB-622401
UDB-619138	2	1-37/64 - 18	1.600	3/4 - 16	1-3/4	1.06	6-1/8	21000	I	15QD-S300	FOR
UDB-619139	2	1-37/64 - 18	1.600	1 - 14	1-3/4	1.37	6-1/8	22000	I	15QD-S300	15QDA-RA-SU
UDB-619954-10	2-5/8	1-37/64 - 18	1.600	3/4 - 16	1-3/4	1.25	6-15/16	21000	I	158QGD-S265	UDB-622401
UDB-619955-10	2-5/8	1-37/64 - 18	1.600	1 - 14	1-3/4	1.37	7-1/8	22000	I	158QGD-S265	FOR
UDB-619953-10	2-5/8	1-37/64 - 18	1.600	1-1/4 - 12	1-3/4	1.62	7-1/8	23000	I	158QGD-S265	15QDA-RA-SU
UDB-619954-27	2-3/4	1.825 - 18	1.841	3/4 - 16	2	1.25	6-7/8	21000	I	15QDA-S275	UDB-614244
UDB-615473	2-3/4	1.825 - 18	1.841	3/4 - 16	2	1.25	7-1/8	21000	I	15QDA-S275	FOR
UDB-619955-27	2-3/4	1.825 - 18	1.841	1 - 14	2	1.25	7-1/8	22000	I	15QDA-S275	158QDA-RA-SU
UDB-619953-27	2-3/4	1.825 - 18	1.841	1-1/4 - 12	2	1.62	7-1/8	23000	I	15QDA-S275	FOR
UDB-617802	2-3/4	1.825 - 18	1.841	1-1/2 - 12	2	—	7-1/8	24000	II	15QDA-S275	158QDA-RA-SU
UDB-619333	3	1-37/64 - 18	1.600	3/4 - 16	1-3/4	1.06	7	21000	I	15QD-S300	UDB-622401
UDB-619297	3	1-37/64 - 18	1.600	1 - 14	1-3/4	1.37	7	22000	I	15QD-S300	FOR
UDB-619274	3	1-37/64 - 18	1.600	1-1/4 - 12	1-3/4	—	7	23000	II	15QD-S300	15QDA-RA-SU
UDB-621236N	4	2-1/4 - 20	2.270	1 - 14	2-3/8	—	9-1/2	22000	II	15QDGB-S400	UDB-614228
UDB-621237N	4	2-1/4 - 20	2.270	1-1/4 - 12	2-3/8	—	9-1/2	23000	II	15QDGB-S400	OR
UDB-621238N	4	2-1/4 - 20	2.270	1-1/2 - 12	2-3/8	—	9-1/2	24000	II	15QDGB-S400	UDB-614658
UDB-614751	4	2-1/4 - 20	2.270	2 - 16	2-3/8	—	9-1/2	25000	II	15QDGB-S400	FOR
UDB-619397	4	2-1/4 - 20	2.270	1 - 14	2-1/2	—	9-7/16	22000	II	15QDGB-S400	158 and 230GD
UDB-619360	4	2-1/4 - 20	2.270	1-1/4 - 12	2-1/2	—	9-7/16	23000	II	15QDGB-S400	RIGHT ANGLE
UDB-619359	4	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	—	9-7/16	24000	II	15QDGB-S400	DRILLS
UDB-619402	4	2-1/4 - 20	2.270	2 - 16	2-1/2	—	9-7/16	25000	II	15QDGB-S400	UDB-614801
UDB-621244N	6	2-1/4 - 20	2.270	1 - 14	2-3/8	—	11-1/2	22000	II	15QDGB-S600	FOR
UDB-621245N	6	2-1/4 - 20	2.270	1-1/4 - 12	2-3/8	—	11-1/2	23000	II	15QDGB-S600	158QDA-RA-SU
UDB-621246N	6	2-1/4 - 20	2.270	1-1/2 - 12	2-3/8	—	11-1/2	24000	II	15QDGB-S600	UDB-614228
UDB-614757	6	2-1/4 - 20	2.270	2 - 16	2-3/8	—	11-1/2	25000	II	15QDGB-S600	FOR
UDB-619646	6	2-1/4 - 20	2.270	1 - 14	2-1/2	—	11-7/16	22000	II	15QDGB-S600	158QDA-RA-SU
UDB-619645	6	2-1/4 - 20	2.270	1-1/4 - 12	2-1/2	—	11-7/16	23000	II	15QDGB-S600	UDB-614801
UDB-619644	6	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	—	11-7/16	24000	II	15QDGB-S600	FOR
UDB-619619	6	2-1/4 - 20	2.270	2 - 16	2-1/2	—	11-7/16	25000	II	15QDGB-S600	158QDA-RA-SU
UDB-621228N	7	2-11/16 - 16	2.706	1 - 14	2-13/16	—	13-9/16	22000	II	15QGD2B-S700	UDB-614801
UDB-621229N	7	2-11/16 - 16	2.706	1-1/4 - 12	2-13/16	—	13-9/16	23000	II	15QGD2B-S700	FOR
UDB-621230N	7	2-11/16 - 16	2.706	1-1/2 - 12	2-13/16	—	13-9/16	24000	II	15QGD2B-S700	158QDA-RA-SU
UDB-614749	7	2-11/16 - 16	2.706	2 - 16	2-13/16	—	13-9/16	25000	II	15QGD2B-S700	UDB-614801
UDB-691800N	7-1/2	2-11/16 - 16	2.706	2 - 16	2-7/8	—	13-1/2	25000	II	15QGD2B-S750	FOR

Nosepieces For All Size Tools

Quackenbush Nosepieces

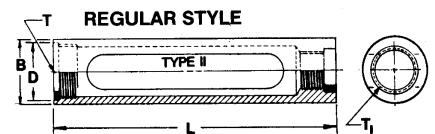
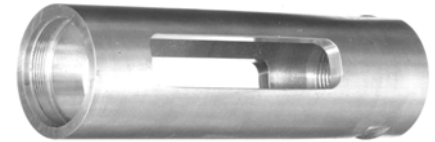
QUACKENBUSH TYPE II FOR ALL SIZE TOOLS

Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

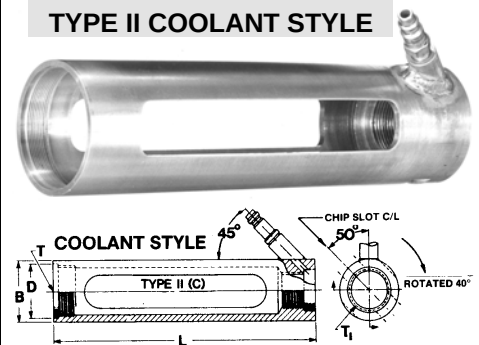
For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	L LENGTH	ADAPTER TIP SERIES	TYPE	RIGHT ANGLE MOTOR NO.
UDB-615518	—	1 - 20	1.011	1 - 14	1-3/16	1-1/4	22000	II	15QDA-RA-SU
UDB-614615	7/8	1 - 20	1.011	3/4 - 16	1-3/16	2	21000	II	15QDA-RA-SU
UDB-614718	7/8	1 - 20	1.011	1 - 14	1-3/16	2	22000	II	15QDA-RA-SU
UDB-615712	7/8	1 - 20	1.011	1-1/4 - 12	1-1/2	2	23000	II	15QDA-RA-SU
UDB-614661	1	1 - 20	1.011	1-1/4 - 12	1-1/2	2-3/8	23000	II	15QDA-RA-SU
UDB-614590	1-1/8	1 - 20	1.011	3/4 - 16	1-3/16	2-1/2	21000	II	15QDA-RA-SU
UDB-614905	1-5/8	1 - 20	1.011	3/4 - 16	1-3/16	3	21000	II	15QDA-RA-SU
UDB-614906	1-5/8	1 - 20	1.011	1 - 14	1-3/16	3	22000	II	15QDA-RA-SU
UDB-614646	1-7/8	1 - 20	1.011	3/4 - 16	1-3/16	3-1/4	21000	II	15QDA-RA-SU
UDB-614591	2-1/8	1 - 20	1.011	3/4 - 16	1-3/16	3-1/2	21000	II	15QDA-RA-SU
UDB-614759	2-1/8	1 - 20	1.011	1 - 14	1-3/16	3-1/2	22000	II	15QDA-RA-SU
UDB-614824	2-5/8	1 - 20	1.011	3/4 - 16	1-3/16	4	21000	II	15QDA-RA-SU
UDB-615460	3-1/8	1 - 20	1.011	3/4 - 16	1-3/16	4-1/2	21000	II	15QDA-RA-SU
UDB-614814	3-3/8	1 - 20	1.011	1 - 14	1-3/16	4-3/4	22000	II	15QDA-RA-SU
UDB-614919	3-5/8	1 - 20	1.011	3/4 - 16	1-3/16	5	21000	II	15QDA-RA-SU
UDB-615757	4-3/8	1 - 20	1.011	3/4 - 16	1-3/16	5-3/4	21000	II	15QDA-RA-SU
UDB-615475	4-5/8	1 - 20	1.011	1-1/4 - 12	1-1/2	6	23000	II	15QDA-RA-SU
UDB-615507	5-1/8	1 - 20	1.011	1 - 14	1-3/16	6-1/2	22000	II	15QDA-RA-SU
UDB-615457	5-5/8	1 - 20	1.011	3/4 - 16	1-3/16	7	21000	II	15QDA-RA-SU

TYPE II REGULAR STYLE



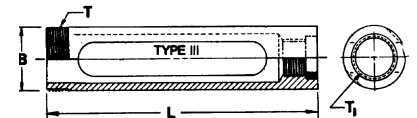
TYPE II COOLANT STYLE



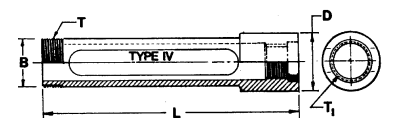
QUACKENBUSH TYPES III and IV

PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	L LENGTH	ADAPTER TIP SERIES	TYPE	RIGHT ANGLE MOTOR NO.
UDB-614715	5/8	1-9/16 - 20	—	1-1/4 - 12	1-9/16	2	23000	III	158QGDA-RA-SU
UDB-614716	5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	2	24000	IV	158QGDA-RA-SU
UDB-615524	1-1/4	1-9/16 - 20	—	3/4 - 16	1-9/16	2-5/8	21000	III	158QGDA-RA-SU
UDB-615548	1-7/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	3-1/4	24000	IV	158QGDA-RA-SU
UDB-614735	2-1/8	1-9/16 - 20	—	3/4 - 16	1-9/16	3-1/2	21000	III	158QGDA-RA-SU
UDB-614732	2-1/8	1-9/16 - 20	2-1/4	2 - 16	1-9/16	3-1/2	25000	IV	158QGDA-RA-SU
UDB-614640	2-1/4	1-9/16 - 20	2-1/4	2 - 16	1-9/16	3-5/8	25000	IV	158QGDA-RA-SU
UDB-615756	2-5/8	1-9/16 - 20	—	1-1/4 - 12	1-9/16	4	23000	III	158QGDA-RA-SU
UDB-615526	3-1/8	1-9/16 - 20	—	1 - 14	1-9/16	4-1/2	22000	III	158QGDA-RA-SU
UDB-615717	3-1/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	4-1/2	24000	IV	158QGDA-RA-SU
UDB-614630	3-5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	5	24000	IV	158QGDA-RA-SU
UDB-615920	4-1/16	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	5-7/16	24000	IV	158QGDA-RA-SU
UDB-612906	4-9/16	1-9/16 - 20	—	3/4 - 16	1-9/16	5-15/16	21000	III	158QGDA-RA-SU
UDB-614821	4-5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	6	24000	IV	158QGDA-RA-SU
UDB-614712	5-5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	7	24000	IV	158QGDA-RA-SU
UDB-615373	6-1/8	1-9/16 - 20	—	1 - 14	1-9/16	7-1/2	22000	III	158QGDA-RA-SU
UDB-614815	6-5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	8	24000	IV	158QGDA-RA-SU
UDB-613657	6-11/16	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	8-1/16	24000	IV	158QGDA-RA-SU
UDB-615464	7-1/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	8-1/2	24000	IV	158QGDA-RA-SU
UDB-614940	8-3/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	9-3/4	24000	IV	158QGDA-RA-SU
UDB-614713	8-5/8	1-9/16 - 20	1-3/4	1-1/2 - 12	1-9/16	10	24000	IV	158QGDA-RA-SU
UDB-612857	10-5/8	1-9/16 - 20	—	1-1/4 - 12	1-9/16	12	23000	III	158QGDA-RA-SU
UDB-615364	13-5/8	1-9/16 - 20	—	1-1/4 - 12	1-9/16	15	23000	III	158QGDA-RA-SU

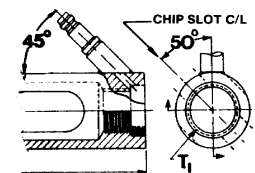
TYPE III REGULAR STYLE



TYPE IV REGULAR STYLE



COOLANT STYLES

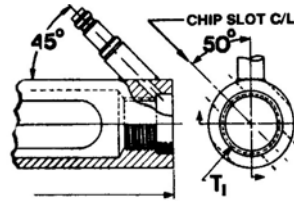
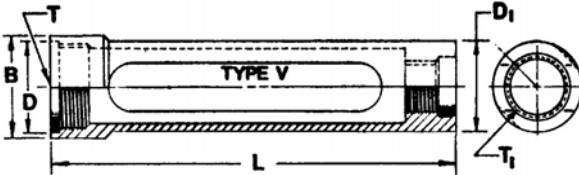


Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No. For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

Quackenbush Type Nosepieces

Quackenbush Type Nosepieces

QUACKENBUSH TYPE NOSEPIECES



Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No.

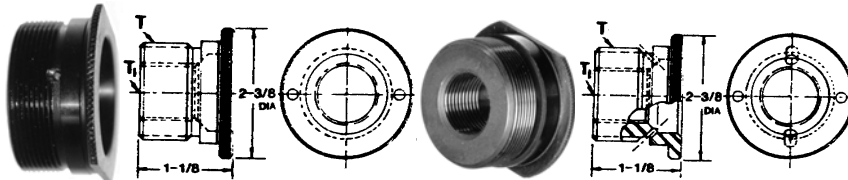
For Vacuum style add 'V' to Part No.

PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	D1 DIA	L LENGTH	ADAPTER TIP SERIES	* TYPE	RIGHT ANGLE MOTOR SERIES
UDB-615710	—	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	3-1/4	25000	V	158OGDA-RA-SU
UDB-615916	5/8	2-1/4 - 20	2.270	1 - 14	2-1/2	2-3/8	4-7/8	22000	V	158OGDA-RA-SU
UDB-614714	3/4	2-1/4 - 20	2.270	1 - 14	2-1/2	2-3/8	5	22000	V	158OGDA-RA-SU
UDB-615519	3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	5	25000	V	158OGDA-RA-SU
UDB-614768	1-3/4	2-1/4 - 20	2.270	1-1/4 - 12	2-1/2	2-3/8	6	23000	V	158OGDA-RA-SU
UDB-614939	1-3/4	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	6	24000	V	158OGDA-RA-SU
UDB-614918	1-3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	6	25000	V	158OGDA-RA-SU
UDB-615676	2-3/16	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	6-7/16	25000	V	158OGDA-RA-SU
UDB-615427	2-7/8	2-1/4 - 20	2.270	1 - 14	2-1/2	2-3/8	7-1/8	22000	V	158OGDA-RA-SU
UDB-615428	3-1/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	7-1/2	25000	V	158OGDA-RA-SU
UDB-615454	3-3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	8	25000	V	158OGDA-RA-SU
UDB-615597	4-1/8	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	8-3/8	25000	V	158OGDA-RA-SU
UDB-614752	5-1/8	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	9-3/8	25000	V	158OGDA-RA-SU
UDB-614885	5-1/4	2-1/4 - 20	2.270	1 - 14	2-1/2	2-3/8	9-1/2	22000	V	158OGDA-RA-SU
UDB-614233	5-1/4	2-1/4 - 20	2.270	1-1/4 - 12	2-1/2	2-3/8	9-1/2	23000	V	158OGDA-RA-SU
UDB-614887	5-1/4	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	9-1/2	24000	V	158OGDA-RA-SU
UDB-614767	5-5/8	2-1/4 - 20	2.270	1-1/4 - 12	2-1/2	2-3/8	9-7/8	23000	V	158OGDA-RA-SU
UDB-614498	5-5/8	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	9-7/8	24000	V	158OGDA-RA-SU
UDB-615682	5-3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	10	25000	V	158OGDA-RA-SU
UDB-614925	6	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	10-1/4	24000	V	158OGDA-RA-SU
UDB-614813	6-3/16	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	10-7/16	24000	V	158OGDA-RA-SU
UDB-615325	7-1/8	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	11-3/8	24000	V	158OGDA-RA-SU
UDB-614758	7-1/8	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	11-3/8	25000	V	158OGDA-RA-SU
UDB-614914	8-5/8	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	12-7/8	24000	V	158OGDA-RA-SU
UDB-614901	8-5/8	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	12-7/8	25000	V	158OGDA-RA-SU
UDB-615328	9-1/8	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	13-3/8	25000	V	158OGDA-RA-SU
UDB-614796	9-1/2	2-1/4 - 20	2.270	1-1/2 - 12	2-1/2	2-3/8	13-3/4	24000	V	158OGDA-RA-SU
UDB-615741	10-3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	15	25000	V	158OGDA-RA-SU
UDB-614529	13-3/4	2-1/4 - 20	2.270	2 - 16	2-1/2	2-3/8	18	25000	V	158OGDA-RA-SU

* TYPE V NOSEPIECES ALL USE UDB-614228 ADAPTERS.

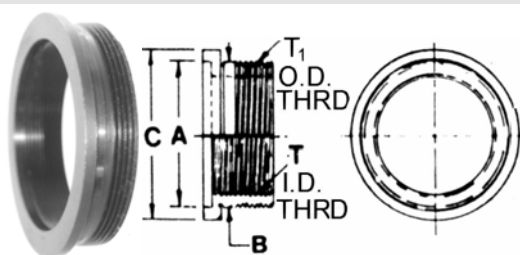
REDUCER BUSHING — NOSEPIECE TO BUSHING TIP

REFER TO PAGES O-17 AND P35
FOR OTHER STYLES.



ALLOY STEEL—HEAT TREATED—BLACK OXIDE FINISH				
REGULAR PART NO.	COOLANT PART NO.	T L-H	T ₁ L-H	ADAPTER TIP SERIES
UDB-619803	UDB-619803C	2-16	3/4-16	21000
UDB-619804	UDB-619804C	2-16	1-14	22000
UDB-619805	UDB-619805C	2-16	1-1/4-12	23000
UDB-619806	UDB-619806C	2-16	1-1/2-12	24000

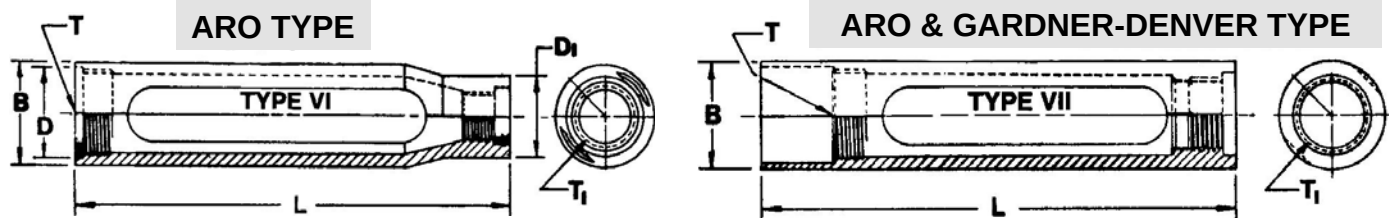
ADAPTER — MOTOR TO NOSEPIECE



PART NO.	A DIA	B DIA	C DIA	T L-H THD	T1 L-H THD	FROM NOSE- PIECE SIZE	TO MOTOR MODEL
UDB-673103	1.600	2.2692	2.5	1-37/64 - 18	2-1/4 - 20	QDA-11 & -12	QDA-10 & -10C
UDB-673105	1.814	2.692	2.5	1.825 - 18	2-1/4 - 20	QDA-11 & -12	QDA-15A & -27A
UDB-673115	1.270	2.7052	2.9	2-1/4 - 20	2-11/16 - 16	QDA-13	QDA-11 & -12

Gardner-Denver and ARO Type Nosepieces

Gardner-Denver & ARO Nosepieces



Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	D ₁ DIA	L LENGTH	HELOX® SERIES ADAPTER TIPS	TYPE	ARO MODEL NO.	FITS
UDB-635918	2	1-7/16 - 18	1.43	3/4 - 16 21000	1-5/8	1.43	5-3/4	UDB-49000 UDB-50000 UDB-51000	VI	8245/8345-201-1 & -2 8245/8345-A45-1 & -2 8245/8345-A30-1 & -2	FITS BANT-A-MATIC TYPES
UDB-640804	3	1-7/16 - 18	1.43	3/4 - 16 21000	1-5/8	1.43	7-1/2	UDB-49000 UDB-50000 UDB-51000 UDB-52000	VI	8245/8345-A8-1 & -2 8245/8345-201-3 8245/8345-A45-3 8245/8345-A30-3	
UDB-635917	3	1-7/16 - 18	1.43	3/4 - 16 21000	1-5/8	1.43	6-7/16	UDB-49000 UDB-50000 UDB-51000 UDB-52000	VI	8245/8345-A8-3	
UDB-635722	2	2 - 16	2.00	3/4 - 16 21000	2-1/4	1.93	4-3/4	UDB-49000 UDB-50000 UDB-51000 UDB-52000	VI	8255/8355-171-1 & -2 8255/8355-A50-1 & -2 8255/8355-A28-1 & -2 8255/8355-A21-1 & -2	FITS PAR-A-MATIC TYPES
UDB-635720	2	2 - 16	2.00	1 - 14 22000	2-1/4	1.93	4-3/4	UDB-53000 UDB-54000	VI		
UDB-636495	2	2 - 16	2.00	1-1/4 - 12 23000	2-1/4	1.93	4-3/4	UDB-55000 UDB-56000	VI		
UDB-638852	3	2 - 16	2.00	3/4 - 16 21000	2-1/4	1.93	6-1/8	UDB-49000 UDB-50000 UDB-51000 UDB-52000	VI	8255/8355-A14-1 & -2 8255/8355-A8-1 & -2 8255/8355-A5-1 & -2 8255/8355-171-3	
UDB-638853	3	2 - 16	2.00	1 - 14 22000	2-1/4	1.93	6-1/8	UDB-53000 UDB-54000	VI	8255/8355-A50-3 8255/8355-A28-3	
UDB-638854	3	2 - 16	2.00	1-1/4 - 12 23000	2-1/4	1.93	6-1/8	UDB-55000 UDB-56000	VI	8255/8355-A21-3	
UDB-640810	3	2 - 16	2.00	3/4 - 16 21000	2-1/4	1.93	7-1/4	UDB-49000 UDB-50000 UDB-51000 UDB-52000	VI	8255/8355-A14-3 8255/8355-A8-3 8255/8355-A5-3	
UDB-640811	3	2 - 16	2.00	1 - 14 22000	2-1/4	1.93	7-1/4	UDB-53000 UDB-54000	VI		
UDB-640812	3	2 - 16	2.00	1-1/4 - 12 23000	2-1/4	1.93	7-1/4	UDB-55000 UDB-56000	VI		
UDB-640584-1	3	2-1/2 - 16	2.50	2-3/8 - 16 ♦ Select T ₁ Thd	2-15/16	2.87	6	SEE NOSE ADAPTERS BE- LOW	VII	8265/8365-171-1 & -3 8265/8365-46-1 & -3 8265/8365-25-1 & -3	FITS SUPER PAR-A-MATIC TYPES
UDB-640584-2	3	2-1/2 - 16	2.50	2-3/8 - 16 ♦ Select T ₁ Thd	2-15/16	2.87	7-7/8		VII	8265/8365-12-1 & -3 8265/8365-6-1 & -3 8265/8365-3-1 & -3	
UDB-644971-1	3	2-3/8 - 16	2.37	2-3/8 - 16 ♦	2-7/8	2.87	7		VII	8660-()-1	
UDB-644971-2	3	2-3/8 - 16	2.37	2-3/8 - 16 ♦	2-7/8	2.87	8-1/2		VII	8660-()-3	FITS HI-THRUST TYPES
UDB-645188	3	2-7/8 - 16	2.87	2-3/8 - 16 ♦	3-5/8	3.62	9-7/8		VII	8670-()-1 & -3	

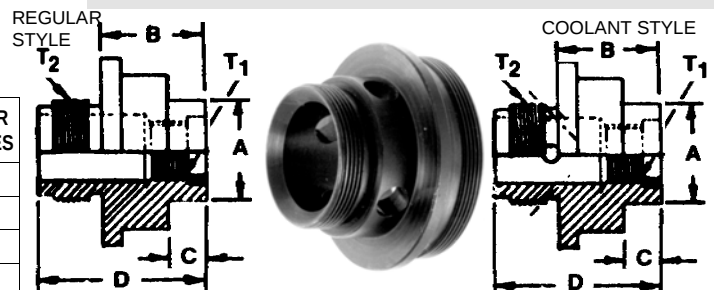
♦ Select T₁ (see below) Collar Thread required.

Use with Nosepieces for ARO, Super Para-A-Matic and Hi-Thrust Drill Motors

ALLOY STEEL — HEAT TREATED — BLACK OXIDE FINISH

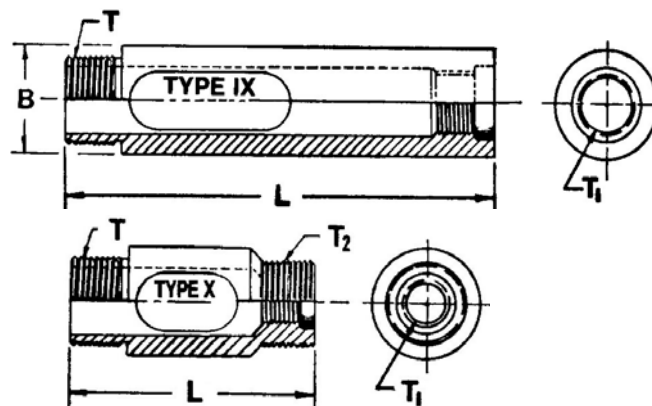
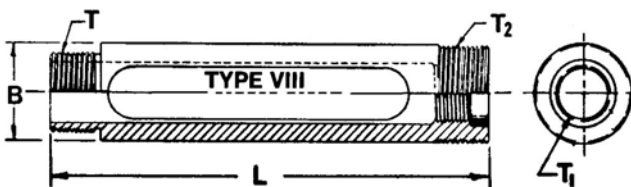
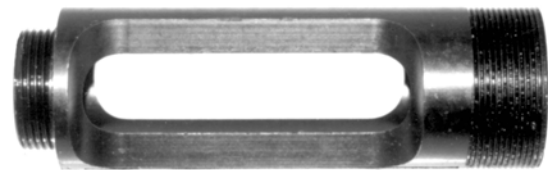
PART NO.	T ₁ L-H THD	T ₂ L-H THD	A DIA	B LENGTH	C LENGTH	D LENGTH	ADAPTER TIP SERIES
UDB-633812	3/4 - 16	2-3/8 - 16	1.75	1.0	.625	1.875	21000
UDB-633751	1 - 14	2-3/8 - 16	1.75	1.0	.625	1.875	22000
UDB-633764	1-1/4 - 12	2-3/8 - 16	1.75	1.0	.625	1.875	23000
UDB-634075	1-1/2 - 12	2-3/8 - 16	2.00	1.0	.625	1.875	24000

NOSEPIECE TO BUSHING TIP COLLAR



Zephyr Type Nosepieces

ZEPHYR NOSEPIECES

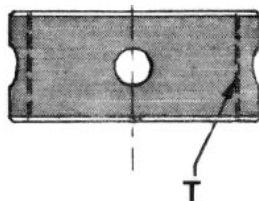


Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

PART NO.	STROKE	T L-H THD	T ₁ L-H THD	T ₂ L-H THD	B DIA	L LENGTH	ADAPTER TIP SERIES	TYPE	MOTOR SERIES
UDB-801107	1	1-3/4 - 16	3/4 - 16	—	0.942	1.765	21000	IX	ZT 801 and ZT 802
UDB-801117	1	1-3/4 - 16	3/4 - 16	1 - 20	1.000	1.765	21000	X	ZT 801 and ZT 802
UDB-811247	1	1-1/8 - 16	3/4 - 16	—	1.250	2.640	21000	IX	ZT 811 and ZT 812
UDB-811207	1	1-1/8 - 16	1 - 14	—	1.250	2.640	22000	IX	ZT 811 and ZT 812
UDB-811269	1	1-1/8 - 16	1-1/4 - 12	—	1.500	2.640	23000	IX	ZT 811 and ZT 812
UDB-811170	1	1-1/8 - 16	1-1/2 - 12	—	1.750	2.640	24000	IX	ZT 811 and ZT 812
UDB-811264	1	1-1/8 - 16	3/4 - 16	1 - 20	1.385	2.640	21000	X	ZT 811 and ZT 812
UDB-811217	1	1-1/8 - 16	1 - 14	1-1/4 - 20	1.565	2.640	22000	VIII	ZT 811 and ZT 812
UDB-811279	1	1-1/8 - 16	1-1/4 - 12	1-1/2 - 20	1.885	2.640	23000	VIII	ZT 811 and ZT 812
UDB-811160	1	1-1/8 - 16	1-1/2 - 12	1-3/4 - 20	2.125	2.640	24000	VIII	ZT 811 and ZT 812
UDB-801108	2	1-3/4 - 16	3/4 - 16	—	0.942	2.765	21000	IX	ZT 801 and ZT 802
UDB-801118	2	1-3/4 - 16	3/4 - 16	1 - 20	1.000	2.765	21000	X	ZT 801 and ZT 802
UDB-811248	2	1-1/8 - 16	3/4 - 16	—	1.250	3.640	21000	IX	ZT 811 and ZT 812
UDB-811208	2	1-1/8 - 16	1 - 14	—	1.250	3.640	22000	IX	ZT 811 and ZT 812
UDB-811270	2	1-1/8 - 16	1-1/4 - 12	—	1.500	3.640	23000	IX	ZT 811 and ZT 812
UDB-811171	2	1-1/8 - 16	1-1/2 - 12	—	1.750	3.640	24000	IX	ZT 811 and ZT 812
UDB-811265	2	1-1/8 - 16	3/4 - 16	1 - 20	1.385	3.640	21000	X	ZT 811 and ZT 812
UDB-811218	2	1-1/8 - 16	1 - 14	1-1/4 - 20	1.565	3.640	22000	VIII	ZT 811 and ZT 812
UDB-811280	2	1-1/8 - 16	1-1/4 - 12	1-1/2 - 20	1.885	3.640	23000	VIII	ZT 811 and ZT 812
UDB-811161	2	1-1/8 - 16	1-1/2 - 12	1-3/4 - 20	2.125	3.640	24000	VIII	ZT 811 and ZT 812
UDB-801109	3	1-3/4 - 16	3/4 - 16	—	0.942	3.765	21000	IX	ZT 802
UDB-801119	3	1-3/4 - 16	3/4 - 16	1 - 20	1.000	3.765	21000	X	ZT 802
UDB-811249	3	1-1/8 - 16	3/4 - 16	—	1.250	4.640	21000	IX	ZT 811 and ZT 812
UDB-811209	3	1-1/8 - 16	1 - 14	—	1.250	4.640	22000	IX	ZT 811 and ZT 812
UDB-811271	3	1-1/8 - 16	1-1/4 - 12	—	1.500	4.640	23000	IX	ZT 811 and ZT 812
UDB-811172	3	1-1/8 - 16	1-1/2 - 12	—	1.750	4.640	24000	IX	ZT 811 and ZT 812
UDB-811266	3	1-1/8 - 16	3/4 - 16	1 - 20	1.385	4.640	21000	X	ZT 811 and ZT 812
UDB-811219	3	1-1/8 - 16	1 - 14	1-1/4 - 20	1.565	4.640	22000	VIII	ZT 811 and ZT 812
UDB-811281	3	1-1/8 - 16	1-1/4 - 12	1-1/2 - 20	1.885	4.640	23000	VIII	ZT 811 and ZT 812
UDB-811162	3	1-1/8 - 16	1-1/2 - 12	1-3/4 - 20	2.125	4.640	24000	VIII	ZT 811 and ZT 812

FINE ADJUSTMENT CHECK NUTS

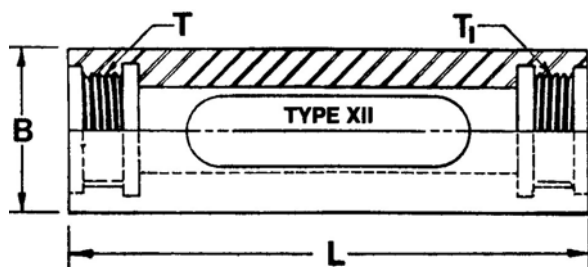


Fits ZT TYPE NOSEPIECES. Adjusts length of Adapter Tip.

PART NO.	T L-H THD	FOR USE ON TYPE
UDB-754935	1 - 20	X
UDB-754936	1-1/4 - 20	VIII
UDB-754937	1-1/2 - 20	VIII
UDB-754938	1-3/4 - 20	VIII

Zephyr and Gardner-Denver Nosepiece Data

Nosepieces And Reducers



ZEPHYR TYPE XII NOSEPIECES



Use with Adapters for Bushing Tips.

Reference Data — Gardner-Denver, Quackenbush, Rockwell Specific Nosepiece Sizes

Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.

For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

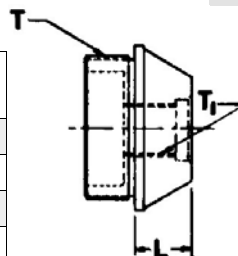
PART NO.	STROKE	T L-H THD	T ₁ L-H THD	B DIA	L LENGTH	TYPE	MOTOR SERIES
UDB-821042	2	1-29/32 - 20	1-29/32 - 20	2.060	1.765	XII	ZT 822 and ZT 831
UDB-821043	3	1-29/32 - 20	1-29/32 - 20	7.125	1.765	XII	ZT 822 and ZT 831
UDB-821044	4	1-29/32 - 20	1-29/32 - 20	8.125	2.640	XII	ZT 822 and ZT 831 and ZT 832

Use with Type XII Nosepieces

ALLOY STEEL — HEAT TREATED — BLACK OXIDE FINISH

PART NO.	T ₁ L-H THD	T L-H THD	L LENGTH	ADAPTER TIP SERIES
UDB-821035	3/4 - 16	1-29/32 - 20	0.940	21000
UDB-821105	1 - 14	1-29/32 - 20	1.000	22000
UDB-821036	1-1/4 - 12	1-29/32 - 20	1.000	23000
UDB-832059	1-1/2 - 12	1-29/32 - 20	1.000	24000

ZEPHYR TYPE ADAPTERS



Nosepiece to Bushing Tip

REDUCER BUSHING DATA



STANDARD REDUCER
Use prefix UDB in P/N
For Standard style



WITH COOLANT HOLE
Use prefix UDB-A in P/N
For Coolant style

Reference Data — Gardner-Denver and Quackenbush type Nosepiece Sizes

See also page P35.

NOSEPIECE THREAD SIZES				REDUCER BUSHING THREAD SIZES		
TOOL GROUP No.	SHORT NOSE PIECE	LONG NOSE PIECE	NOSE-PIECE THD	OUTSIDE THREAD	INSIDE THREAD	REDUCER PART NO.
92D2	27011	27012	3/4 - 16 L.H.	—	—	—
92D4	27356	27356-1				
92C3	22163	—				
96H	22163	—				
92D2	27011-1	27012-1	1 - 14 L.H.	1 - 14 L.H.	3/4 - 16 L.H.	UDB-17952 UDB-A-17952
92D4	27358	27358-1				
92D6	14352	15692				
92C3	23342	—				
93C5	60574	—				
96H	23342	—				
92D6	17408	18509	1-1/4 - 12 L.H.	1-1/4 - 12 L.H.	3/4 - 16 L.H.	UDB-25018 UDB-A-25018
92D10	17868	31364				
93C3	25693	—				
93C5	60556	—				

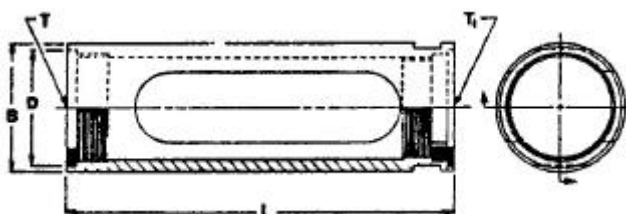
NOSEPIECE THREAD SIZES				REDUCER BUSHING THREAD SIZES		
TOOL GROUP No.	SHORT NOSE PIECE	LONG NOSE PIECE	NOSE-PIECE THD	OUTSIDE THREAD	INSIDE THREAD	REDUCER PART NO.
96H	25693	61148	1-1/4 - 12 L.H.	1-1/4 - 12 L.H.	1 - 14 L.H.	UDB-25583 UDB-A-25583
96C5	60916	60917				
92D4	27357	27357-1				
92D6	17409	26685-1	1-1/2 - 12 L.H.	1-1/2 - 12 L.H.	3/4 - 16 L.H.	UDB-25582 UDB-A-25582
92D10	17044	31365				
93C5	60557	—				
96C5	60919	60920	2 - 16 L.H.	2 - 16 L.H.	1 - 14 L.H.	UDB-20132
92D10	17677	31366			1-1/2 - 12 L.H.	UDB-27910 UDB-A-27910
92D10	17677	31367				
93C5	60558	—				
96C5	60922	60523				

Insert Nosepieces

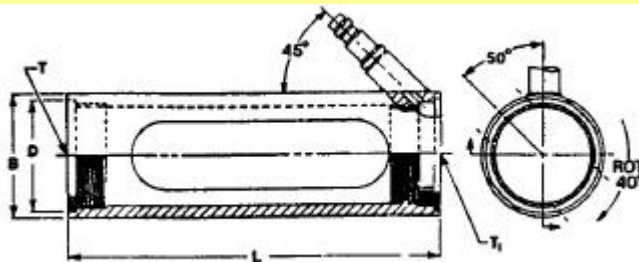
Quackenbush, Aro, Gardner-Denver Types

INSERT NOSEPIECES

Regular Style



Coolant Style

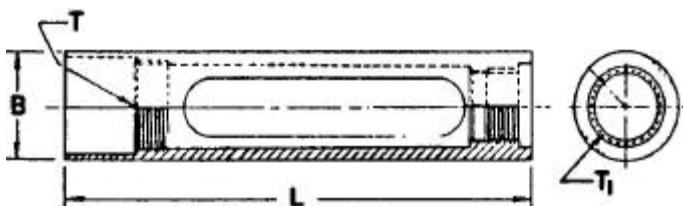


These Insert Nosepieces accommodate all sizes of Adapter Tips.
Used with Threaded Reducer Bushings shown on Pages O-14, O-17 and P35.
Threads from 3/4 - 16 to 2 - 16 on motors with 7" and 7-1/2" strokes.

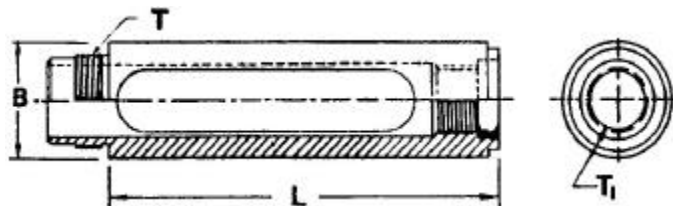
Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.
For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

PART NO.	STROKE	T L-H THD	D DIA	T ₁ L-H THD	B DIA	L LENGTH	QUACKENBUSH MOTOR NUMBER	STYLE
UDB-691800	7" to 7-1/2"	2-11/16 - 16	2.706	2 - 16	2-7/8	13-1/2	QDA-13 and QDA-14	REGULAR STYLE
UDB-691800C	7" to 7-1/2"	2-11/16 - 16	2.706	2 - 16	2-7/8	13-1/2	QDA-13 and QDA-14	COOLANT STYLE

Type VII for Gardner-Denver and Aro Types



Type XI for Gardner-Denver Types



Aluminum Nosepieces will be supplied unless steel is specified by adding 'S' to Part No.
For Coolant Style add 'C' to regular style Part No. For Indexing style add 'I' to Part No. For Vacuum style add 'V.'

PART NO.	STROKE	T L-H THD	T ₁ L-H THD	B DIA	L LENGTH	ADAPTER TIP SERIES	TYPE	GARDNER-DENVER MODEL NO.
UDB-523513	2	1-9/16 - 18	3/4 - 16	1-3/4	6.88	21000	VII	#MM 6 SERIES
UDB-524932	1-1/2	1-3/4 - 16	1 - 14	2	7.08	22000	VII	#MM 8 SERIES
UDB-524935	2-1/2	1-3/4 - 16	1 - 14	2	8.08	22000	VII	#MM 8 SERIES
UDB-525040	2	2-3/4 - 16	1-1/2 - 12	3	9.31	24000	VII	#MM 13 SERIES
UDB-525044	3-1/2	2-3/4 - 16	1-1/2 - 12	3	10.81	24000	VII	#MM 13 SERIES
UDB-17677	6	3-5/8 - 16	2 - 16	4	6.12	25000	XI	#D 10 SERIES
UDB-17409	6	3-5/8 - 16	1-1/2 - 12	4	6.12	24000	XI	#D 10 SERIES
UDB-26685	6	3-5/8 - 16	1-1/2 - 12	4	8.75	24000	XI	#D 10 SERIES
UDB-27011-1	6	3-5/8 - 16	1 - 14	4	6.12	22000	XI	#D 10 SERIES
UDB-27012-1	6	3-5/8 - 16	1 - 14	4	8.75	22000	XI	#D 10 SERIES
UDB-31366	6	3-5/8 - 16	2 - 16	4	8.75	25000	XI	#D 10 SERIES
UDB-31367	6	3-5/8 - 16	2 - 16	4	10.25	25000	XI	#D 10 SERIES

Adapter Tip Extensions

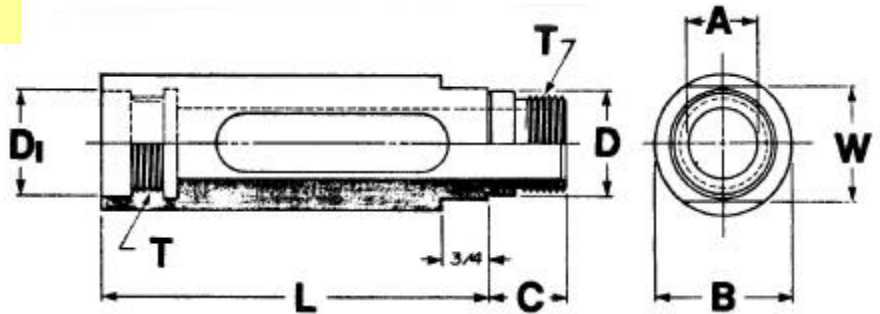
Adapter Tip Extensions

ADAPTER TIP EXTENSIONS

UNITED'S ADAPTER TIP EXTENSIONS will add working length to drilling, reaming and line-boring.

The Adapter Tip Extension increases your reach for different locations.

UNITED'S ADAPTER TIP EXTENSIONS can be supplied in any length.



- MANUFACTURED FROM TOUGH HEAVY-DUTY ALUMINUM.

- HELD TO CLOSE TOLERANCES TO ACCOMMODATE UNITED NURLOCK ADAPTER TIPS, REDUCERS AND NOSEPIECES.

INCREASE YOUR REACH WITH UNITED'S ADAPTER TIP EXTENSIONS!

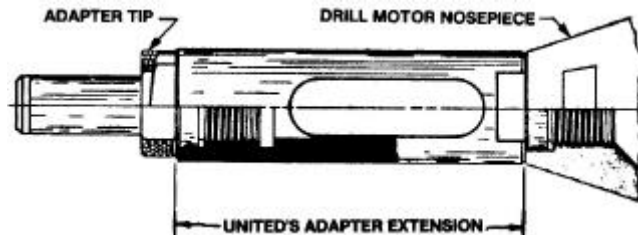
ADAPTER TIP WITH EXTENSION



- WRENCHING FLATS ARE PROVIDED TO SECURE EXTENSION.

- LIGHT IN WEIGHT.

- CHIP CLEARANCE SLOTS PREVENT CLOGGING.



ALUMINUM EXTENSIONS WILL BE PROVIDED UNLESS STEEL IS SPECIFIED.

FOR COOLANT TYPE, ADD SUFFIX 'C' TO PART NO.

A INSIDE DIA	B OUTSIDE DIA	C LEN	D MALE DIA	D ₁ FEMALE DIA	T L-H THD	W WRENCH FLATS	PART NO. FOR 'L' EXTENSION LENGTHS					ADAPTER TIP SERIES
							2"	4"	6"	8"	10"	
15/32	1"	3/4	.8110 .8104	.8120 .8125	3/4 - 16	7/8	UDB-E21002	UDB-E21004	UDB-E21006	UDB-E21008	UDB-E21010	21000
19/32	1-7/16	1"	1.0610 1.0604	1.0620 1.0625	1 - 14	1-1/4	UDB-E22002	UDB-E22004	UDB-E22006	UDB-E22008	UDB-E22010	22000
15/16	1-11/16	1"	1.3110 1.3104	1.3120 1.3125	1-1/4 - 12	1-1/2	UDB-E23002	UDB-E23004	UDB-E23006	UDB-E23008	UDB-E23010	23000
1-1/8	2"	1"	1.5610 1.5604	1.5620 1.5625	1-1/2 - 12	1-3/4	UDB-E24002	UDB-E24004	UDB-E24006	UDB-E24008	UDB-E24010	24000
1-11/16	2-5/8	1"	2.0610 2.0604	2.0620 2.0625	2 - 16	2-1/4	UDB-E25002	UDB-E25004	UDB-E25006	UDB-E25008	UDB-E25010	25000

Extended Ranges

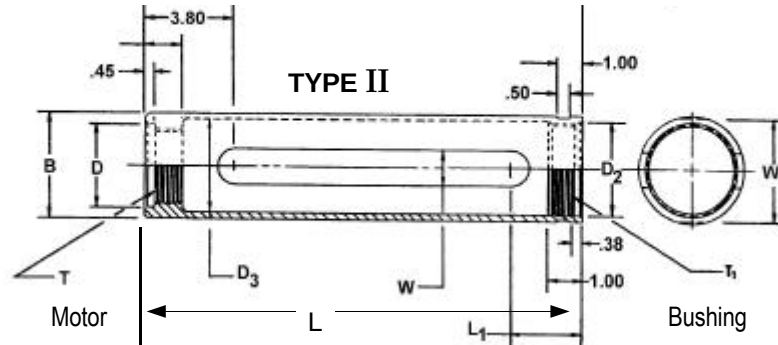
Extended Range Nosepieces

MOTOR THREADS 2-16 LH to 3-5/8-16 LH



EXTENDED RANGE NOSEPIECES TO FIT:

**26000,
27000,
28000,
29000, and
30000 NURLOCK
ADAPTER TIPS**



NOTE: Aluminum Nosepieces will be supplied, unless STEEL is specified by adding **S** to Part No.

For COOLANT style, add **C'** to regular style Part No.

Add **V** for VACUUM.

Add **I** for INDEXING.

See page O-5.

UNITED NEW PART NO.	UNITED OLD PART NO.	B	L OAL	T _{LH} MOTOR	T ₁ LH BUSHING	D	D ₂	D ₃	L ₁	W	W ₁	TIP SERIES	REFERENCE PREFIX: C652-94279-	MOTOR NO. CODES
UCC-626409	UCC-626909	2.88	9.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	2.75	26000	-201XXX-9.00-A/S-GT	1 THRU 4
UCC-626412	UCC-626912	2.88	12.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	2.75	26000	-201XXX-12.00-A/S-GT	1 THRU 4
UCC-626415	UCC-626915	2.88	15.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	2.75	26000	-201XXX-15.00-A/S-GT	7 AND 8
UCC-626418	UCC-626918	2.88	18.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	2.75	26000	-201XXX-18.00-A/S-GT	7 AND 8
UCC-626509	UCC-626920	3.25	9.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	3.12	26000	-205XXX-9.00-A/S-GT	5 AND 6
UCC-626512	UCC-626925	3.25	12.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	3.12	26000	-205XXX-12.00-A/S-GT	5 AND 6
UCC-626515	UCC-626930	3.25	15.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	3.12	26000	-205XXX-15.00-A/S-GT	5 AND 6
UCC-626518	UCC-626935	3.25	18.0	2-16	2-1/4-16	2.2500	2.3120	2.4	2.5	1.00	3.12	26000	-205XXX-18.00-A/S-GT	5 AND 6
UCC-627609	UCC-627909	3.38	9.0	2-1/2-16	2-3/4-16	2.7500	2.8120	2.9	2.6	1.25	3.25	27000	-202XXX-9.00-A/S-GT	1 THRU 8
UCC-627612	UCC-627912	3.38	12.0	2-1/2-16	2-3/4-16	2.7500	2.8120	2.9	2.6	1.25	3.25	27000	-202XXX-12.00-A/S-GT	1 THRU 8
UCC-627615	UCC-627915	3.38	15.0	2-1/2-16	2-3/4-16	2.7500	2.8120	2.9	2.6	1.25	3.25	27000	-202XXX-15.00-A/S-GT	1 THRU 8
UCC-627618	UCC-627918	3.38	18.0	2-1/2-16	2-3/4-16	2.7500	2.8120	2.9	2.6	1.25	3.25	27000	-202XXX-18.00-A/S-GT	1 THRU 8
UCC-628709	UCC-628909	3.88	9.0	3-8	3-1/4-16	3.2500	3.3120	3.4	2.6	1.25	3.68	28000	-203XXX-9.00-A/S-GT	1 THRU 8
UCC-628712	UCC-628912	3.88	12.0	3-8	3-1/4-16	3.2500	3.3120	3.4	2.6	1.25	3.68	28000	-203XXX-12.00-A/S-GT	1 THRU 8
UCC-628715	UCC-628915	3.88	15.0	3-8	3-1/4-16	3.2500	3.3120	3.4	2.6	1.25	3.68	28000	-203XXX-15.00-A/S-GT	1 THRU 8
UCC-628718	UCC-628918	3.88	18.0	3-8	3-1/4-16	3.2500	3.3120	3.4	2.6	1.25	3.68	28000	-203XXX-18.00-A/S-GT	1 THRU 8
UCC-629809	UCC-629909	4.38	9.0	3-8	3-3/4-16	3.5000	3.8120	3.9	2.7	1.40	4.18	29000	-204XXX-9.00-A/S-GT	1 THRU 8
UCC-629812	UCC-629912	4.38	12.0	3-8	3-3/4-16	3.5000	3.8120	3.9	2.7	1.40	4.18	29000	-204XXX-12.00-A/S-GT	1 THRU 8
UCC-629815	UCC-629915	4.38	15.0	3-8	3-3/4-16	3.5000	3.8120	3.9	2.7	1.40	4.18	29000	-204XXX-15.00-A/S-GT	1 THRU 8
UCC-629818	UCC-629918	4.38	18.0	3-8	3-3/4-16	3.5000	3.8120	3.9	2.7	1.40	4.18	29000	-204XXX-18.00-A/S-GT	1 THRU 8
UCC-630909	UCC-630909	4.8	9.0	3-5/8-16	4-1/4-16	4.0000	4.3120	4.4	2.9	1.75	4.56	30000	-206XXX-9.00-A/S-GT	5 THRU 8
UCC-630912	UCC-630912	4.8	12.0	3-5/8-16	4-1/4-16	4.0000	4.3120	4.4	2.9	1.75	4.56	30000	-206XXX-12.00-A/S-GT	5 THRU 8
UCC-630915	UCC-630915	4.8	15.0	3-5/8-16	4-1/4-16	4.0000	4.3120	4.4	2.9	1.75	4.56	30000	-206XXX-15.00-A/S-GT	5 THRU 8
UCC-630918	UCC-630918	4.8	18.0	3-5/8-16	4-1/4-16	4.0000	4.3120	4.4	2.9	1.75	4.56	30000	-206XXX-18.00-A/S-GT	5 THRU 8
UCC-630924	UCC-630924	4.8	24.0	3-5/8-16	4-1/4-16	4.0000	4.3120	4.4	2.9	1.75	4.56	30000	-206XXX-24.00-A/S-GT	5 THRU 8

Overall Lengths (L) charted are UCC Standards. Other lengths to suit specific needs available.

Motors that can be used with Extended Range Bushing Tips.

Code Numbers below are also for chart above and charts on next page.

1=158QGDB-S400-QDA-11

4=400QGDBV-S600-QDA-12

6A=158QGDD2B-5750-QDA-14

2=400QGDBV-S400-QDA-12

5=158QGDA2B-S700-QDA-13

7=158QGDA-RAB-SU-RS-Q4CD

3=158QGDB-S600-QDA-12

6=400QGDBAV-S700-QDA-14

8=230QGDA-RAB-SU-MS-QCA-AN

EXAMPLE CALL OUT OF PART NO.

UCC - 6 2 6 4 0 9

SPECIAL NOSE PIECE

NOSE PIECE LENGTH

ADAPTER TIP SERIES

NOSE PIECE O.D. SIZE

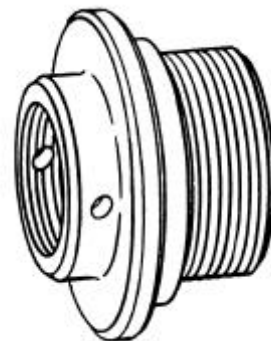
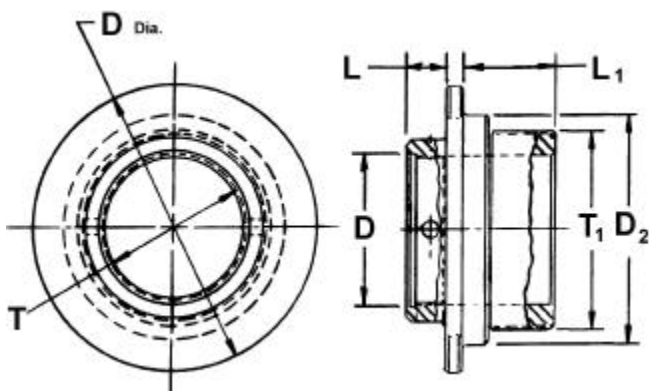
4 = 2.88 O.D. 7 = 3.88 O.D.
5 = 3.25 O.D. 8 = 4.38 O.D.
6 = 3.38 O.D. 9 = 4.80 O.D.

Extended Range Adapters

MOTOR TO NOSEPIECE ADAPTERS

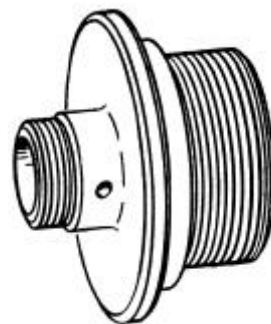
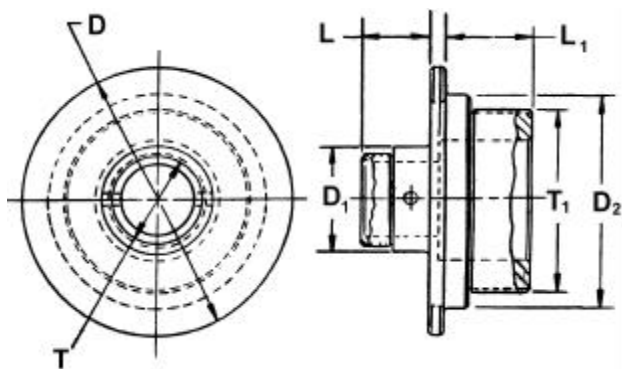
Motor To Nosepiece Adapters

MOTOR TO NOSEPIECE



UNITED PART NO.	T LH THD	D1 DIA	T1 LH THD	D2 DIA	THREAD SERIES	D DIA	L LENGTH	L1 LENGTH	C652-94279- GT DASH #	* MOTOR CODE
UCC-626800	2-1/4-20	2.270	2-16	2.2495	26000	2.88	.63	1.15	-221	1 THRU 4
UCC-627800	2-1/4-20	2.270	2-1/2-16	2.7495	27000	3.38	.63	1.40	-222	1 THRU 4
UCC-628800	2-1/4-20	2.270	3-8	3.2495	28000	3.88	.63	1.40	-223	1 THRU 4
UCC-629800	2-1/4-20	2.270	3-8	3.4995	29000	4.38	.63	1.40	-224	1 THRU 4
UCC-630800	2-1/4-20	2.270	3-5/8-16	3.9995	30000	4.80	.63	1.40		1 THRU 4
UCC-626805	2-11/16-20	2.706	2-16	2.2495	26000	2.88	.63	1.15	-225	5 AND 6
UCC-627805	2-11/16-20	2.706	2-1/2-16	2.7495	27000	3.38	.63	1.40	-226	5 AND 6
UCC-628805	2-11/16-20	2.706	3-8	3.2495	28000	3.88	.63	1.40	-227	5 AND 6
UCC-629805	2-11/16-20	2.706	3-8	3.4995	29000	4.38	.63	1.40	-228	5 AND 6
UCC-630805	2-11/16-20	2.706	3-5/8-16	3.9995	30000	4.80	.63	1.40		5 AND 6
UCC-626810	2-1/4-20	2.270	2-16	2.2495	26000	2.88	.63	1.15	-229	7 AND 8
UCC-627810	2-1/4-20	2.270	2-1/2-16	2.7495	27000	3.38	.63	1.40	-230	7 AND 8
UCC-628810	2-1/4-20	2.270	3-8	3.2495	28000	3.88	.63	1.40	-231	7 AND 8
UCC-629810	2-1/4-20	2.270	3-8	3.4995	29000	4.38	.63	1.40	-232	7 AND 8
UCC-630810	2-1/4-20	2.270	3-5/8-16	3.9995	30000	4.80	.63	1.40		7 AND 8

MOTOR TO NOSEPIECE



UNITED PART NO.	T LH THRD	D1 DIA	T1 LH THRD	D2 DIA	THREAD SERIES	D DIA	L LENGTH	L1 LENGTH	C652-94279- GT DASH #	* MOTOR CODE
UCC-626815	1-9/16-20	1.75	2-16	2.2495	26000	2.88	.97	1.15	-233	7 AND 8
UCC-627815	1-9/16-20	1.75	2-1/2-16	2.7495	27000	3.38	.97	1.40	-234	7 AND 8
UCC-628815	1-9/16-20	1.75	3-8	3.2495	28150	3.88	.97	1.40	-235	7 AND 8
UCC-629815	1-9/16-20	1.75	3-8	3.4995	29000	4.38	.97	1.40	-236	7 AND 8
UCC-630815	1-9/16-20	1.75	3-5/8-16	3.9995	30000	4.80	.97	1.40		7 AND 8

TYPE V

Motor to Nosepiece
Adapters are precision
machined, hardened and
ground. Black Oxide
coated.

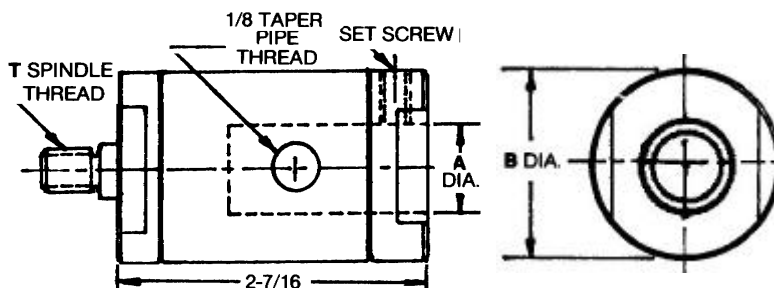
* See Motor Code Numbers on page O-20.

Air Fluid Chucks

Coolant Chucks for Straight/Tapered Drills

AIR FLUID CHUCK TYPE I WITH MALE ADAPTER THREAD

NOTE:
COMBINATION SIDE AND END COOLANT FEED.



COOLANT CHUCK for Straight or Tapered Drills and Reamers with Cylindrical Shanks.

Set Screw provides drive on cutting tool shank.

Durable Long-Life Bearings and Seals.

Maximum Shank Capacity: One inch.

Transfers coolant at high pressure through coolant ports of cutting tool.

QUALITY ASSURED HARDENED ALLOY STEEL PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

NEW PART NO.	OLD PART NO.	A DIAMETER	B DIAMETER	T THREAD	MOTOR MODEL NO.
UDB-621201MC	UDB-611139	.3755	1.437	3/8-24	QDA-10
UDB-621258MC	UDB-611139	.5005	1.437	3/8-24	QDA-15
UDB-621205MC	UDB-611159	.5005	1.437	9/16-18	QDA-11 QDA-12
UDB-621209MC	UDB-611169	.7505	1.938	9/16-18	
UDB-621212MCA	UDB-611161	1.0005	1.938	9/16-18	
UDB-621212MCB	UDB-611170	1.0005	1.938	3/4-16	QDA-13 QDA-14

Fluid Chucks for non-standard shank diameters are available as special orders.

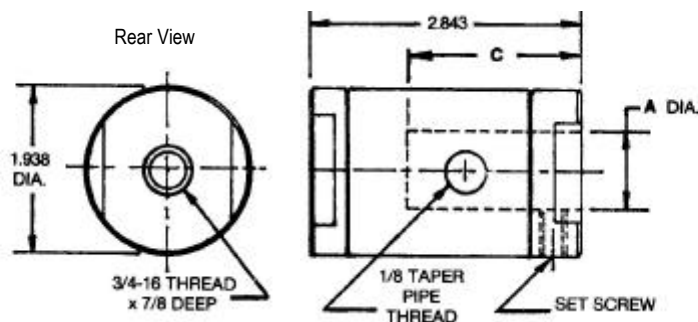
AIR FLUID CHUCK TYPE II WITH FEMALE ADAPTER THREAD

NOTE:
COMBINATION SIDE AND END COOLANT



QUALITY ASSURED
HARDENED ALLOY STEEL
PRECISION GROUND BRONZE SLEEVE
CONCENTRIC
CLOSE TOLERANCE
TESTED AT 100 PSI FOR LEAKS

See Spindle Extensions and Adapters
On Pages O-27 and O-28.



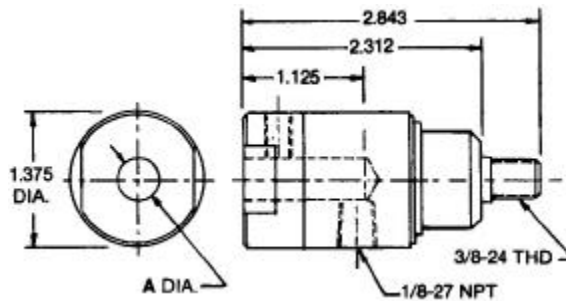
UNITED PART NO.	A DIAMETER	(REF.)	C TOOL SHANK DEPTH
UDB-621202FC	.3599	23/64	1.062
UDB-621186FC	.3755	3/8	
UDB-621266FC	.4067	13/32	
UDB-621203FC	.4224	27/64	1.437
UDB-621289FC	.4380	7/16	
UDB-621204FC	.4849	31/64	
UDB-621205FC	.5005	1/2	
UDB-621267FC	.5317	17/32	1.687
UDB-621206FC	.5474	35/64	
UDB-621290FC	.5630	9/16	
UDB-621207FC	.6099	39/64	
UDB-621291FC	.6255	5/8	
UDB-621208FC	.7349	47/64	
UDB-621209FC	.7505	3/4	
UDB-621210FC	.8599	55/64	
UDB-621211FC	.9224	59/64	
UDB-621292FC	.9849	63/64	
UDB-621212FC	1.0005	1"	

Air Fluid Chucks, Adapters & Coolant Feet

Air Fluid Chucks

AIR FLUID CHUCK TYPE III (MINI SERIES)

UNITED PART NO.	A DIA.	(REF.)
UDB-621330MMC	.1855	#13
UDB-621194MMC	.1915	#11
UDB-621217MMC	.1940	#10
UDB-621218MMC	.1965	#9
UDB-621195MMC	.1995	#8
UDB-621196MMC	.2349	15/64
UDB-621331MMC	.2465	D
UDB-621197MMC	.2505	1/4
UDB-621198MMC	.2974	19/64
UDB-621199MMC	.3130	5/16
UDB-621298MMC	.3286	21/64
UDB-621200MMC	.3599	23/64
UDB-621201MMC	.3755	3/8

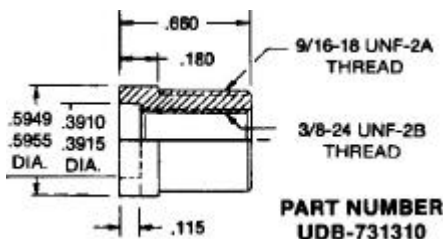


FITS ALL NOSE PIECES

QUALITY ASSURED HARDENED ALLOY STEEL PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

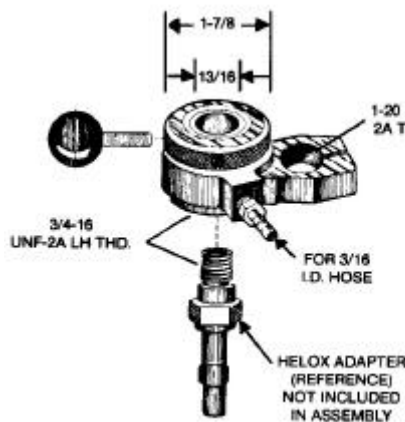
FLUID CHUCK ADAPTERS

ADAPTS TYPE III
(MINI CHUCKS)
TO 9/16 - 18
THREADED
SPINDLES



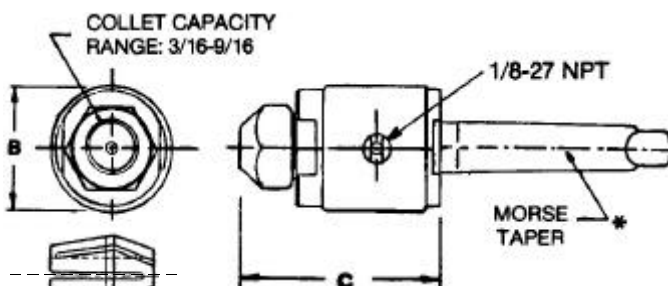
**PART NUMBER
UDB-731310**

COOLANT FEET (SPACEMATIC TYPE)



UDB-621305

AIR FLUID CHUCK TYPE V



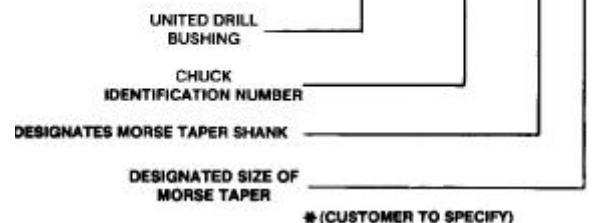
COLLET
Uses Series
UDB-562936 Collets.
See Page O-24.

- USE WITH UDB-562936 'Y' STYLE COLLETS
- COLLET CAPACITY RANGE: 3/16 THRU 9/16
- ORDER BY PART NO. AND SPECIFY I.D. REQUIRED.
- AVAILABLE IN ALL FRACTIONS, NUMBER AND LETTER SIZES WITHIN NOTED RANGE.
- OTHER SIZES AVAILABLE AS SPECIAL ORDERS.



HOW TO ORDER

UDB - 673403 MT (5)

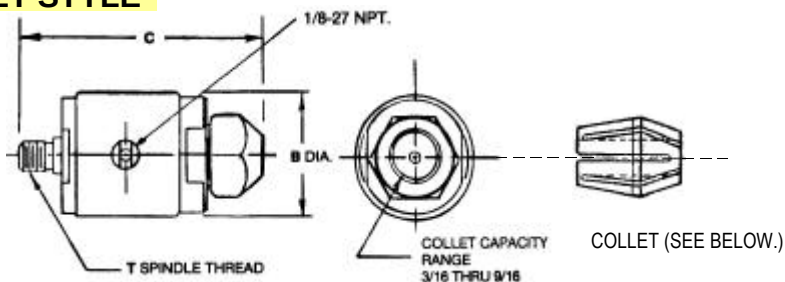


QUALITY ASSURED HARDENED ALLOY STEEL PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

Air Fluid Chucks, Collets, 3-Jaw Chucks

Portable Air Motor Fluid Chucks

AIR FLUID CHUCKS TYPE IV - COLLET STYLE



has long life seals and bearings.

UDB 562936 'Y' style Collets shown below.

CHUCK can be ordered special with 1/4 - 20 Thread, if required.

Designed for use with Positive Feed Air Motors.

A Hanson type
the Chuck to which a fluid line is attached.

To order replacement Hexagonal Collet Nuts,
specify UDB-

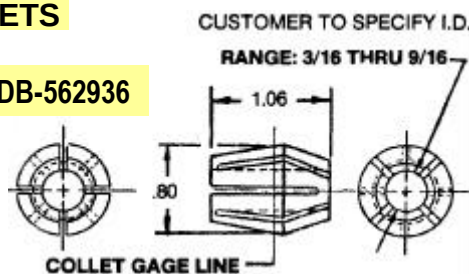
PRECISION GROUND BRONZE SLEEVE QUALITY ASSURED
HARDENED ALLOY STEEL CONCENTRIC
CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

TYPE IV PART NO.	B DIAMETER	C LENGTH	T THREAD	MOTOR MODEL NO.
UDB-673403	1-31/64	3-5/8	3/8 - 24	QDA-10, - 10C, - 10CHD, - 15A, -27A
UDB-673431	1-23/32	4-5/16	9/16 - 18	QDA-11, QDA-12
UDB-673421	1-23/32	4-5/16	3/4 - 16	QDA-13, QDA-14

DOUBLE TAPER COLLETS



UDB-562936



EIGHT SLOTTED COLLET - UDB-562936

PRECISION GROUND

HOLDS CUTTING TOOLS CONCENTRICALLY

For use with Collet style Fluid Chucks shown above.

Available in all Fractional, Number and Letter Sizes wi

THREE-JAW CHUCKS - JACOBS STYLE



CAPACITY 0" TO 3/4"
FEMALE THREAD
ACCURATE — FIRM — STRONG
DESIGNED FOR THREAD MOUNTING
MOTOR SPINDLE TO CHUCK



CHUCK KEY



ADAPTER
SEE PAGE O-28.

3-JAW CHUCK

3-JAW PART NO.	CHUCK CAPACITY	MOUNTING THREAD	MAX LENGTH	DIAMETER	KEY NUMBER	REF.	CHUCK REF.	ADAPTER MOTOR SPINDLE TO CHUCK
UDB-849106JC	0 - 1/4	3/8 - 24	1-15/16	1-3/16	UDB849101	K1	1B	UDB-731301
UDB-849108JC	0 - 5/16	3/8 - 24	2-13/32	1-27/64	UDB849130	K30	30B	UDB-731301
UDB-849109JC	0 - 3/8	3/8 - 24	2-13/16	1-11/16	UDB849102	K2	2B	UDB-731301
UDB-849415JC	5/64 - 1/2	1/2 - 20	3-3/32	1-15/16	UDB849132	K32	33B	UDB-731302
UDB-849764JC	3/16 - 3/4	3/4 - 16	4-1/8	2-9/16	UDB849104	K4	36B	UDB-731304

Fluid Chucks and Swivels

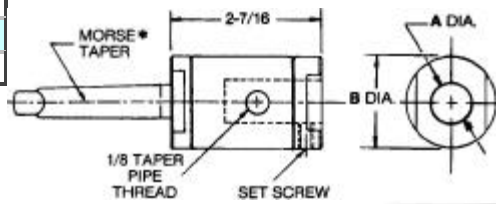
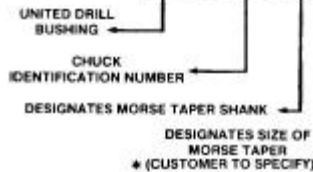
Air Fluid Tapered Shank Chucks & Fluid Swivels

PART NO.	A DIA.	B DIA.
UDB-621205-MT-(x) *	.5005	1.437
UDB-621209-MT-(x) *	.7505	1.938
UDB-621212-MT-(x) *	1.0005	1.938

* (CUSTOMER SPECIFIES)

HOW TO ORDER

UDB - 621205 MT (3)



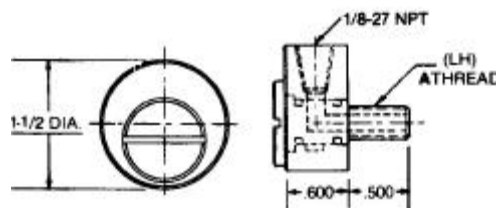
QUALITY ASSURED HARDENED ALLOY STEEL
PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE
TESTED AT 100 PSI FOR LEAKS

AIR FLUID CHUCK TYPE VI



WE RECOMMEND YOU USE SPINDLE GUARDS.

PART NO.	A THD	REF.
UDB-MFS-1	1/4 28 LH	621172
UDB-MFS-2	7/16 20 LH	611126



MALE FLUID SWIVEL

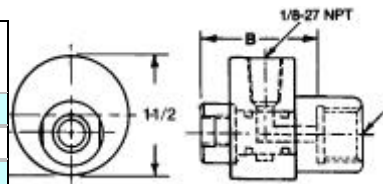


QUALITY ASSURED HARDENED ALLOY STEEL PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

**FOR RIGHT ANGLE MOTORS
ADAPTS DIRECTLY TO SPINDLE O.D. THREAD**

PART NO.	T LH THD	RIGHT-ANGLE MOTOR NO.	INDUSTRY REFERENCE	A	B
UDB-FFS-1	7/8 18	158QGDA-RA-SU	621448-0	.62	.81
UDB-FFS-2	7/8 27	158QGDA-RA-SU	621450-6	.62	.81
UDB-FFS-3	7/8 36	158QGDA-RA-SU	621449-8	.62	.81
UDB-FFS-4	1/2 22	158QDA-RA-SU	621172-6	.62	1.12

SPECIAL SIZES
AVAILABLE FOR OTHER
SPINDLE THREADS.



FEMALE FLUID SWIVEL



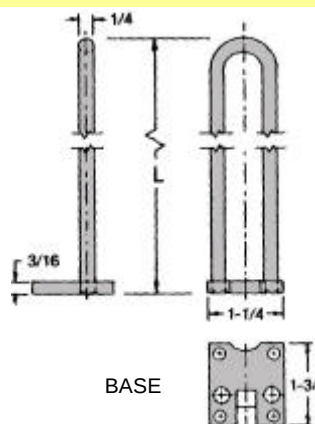
QUALITY ASSURED HARDENED ALLOY STEEL PRECISION GROUND BRONZE SLEEVE
CONCENTRIC CLOSE TOLERANCE TESTED AT 100 PSI FOR LEAKS

SPINDLE GUARD FOR FLUID SWIVEL GUIDES

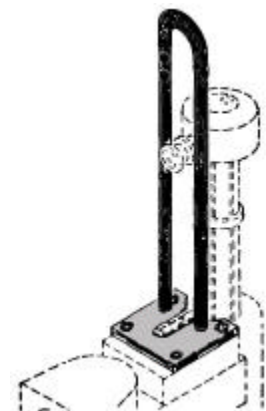
**PROTECTS SPINDLE, COOLANT LINE,
AND AIR FLUID CHUCKS**

**FITS QUACKENBUSH, ROCKWELL
AND COOPER RIGHT ANGLE MOTORS.**

PART NO.	L HEIGHT
UDB-170906	6
UDB-170995	8-7/8
UDB-170996	4-1/4



BASE



Morse Taper Adapters

Morse Taper Adapters Male and Female Styles

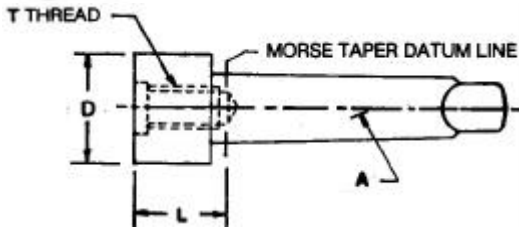
MORSE TAPER ADAPTERS (MALE)

FOR DRILL MOTORS TO CHUCKS

LARGE HEAD WITH FEMALE THREAD



STYLE I



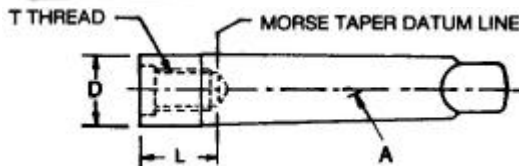
ALLOY STEEL HEAT TREATED PRECISION GROUND BLACK OXIDE FINISH

UNITED PART NO.	A ★ MORSE TAPER	T THD	D DIA	L LENGTH	STYLE
UDB-619901	#1	3/8 - 24	.62	.75	I
UDB-619902	#1	9/16 - 18	.75	1.00	I
UDB-619903	#2	3/8 - 24	.75	.37	II
UDB-619904	#2	9/16 - 18	.75	.50	II
UDB-619905	#3	3/8 - 24	1.00	.37	II
UDB-619906	#3	9/16 - 18	1.00	.50	II
UDB-619907	#3	3/4 - 16	1.00	.50	II
UDB-619908	#4	3/8 - 24	1.25	.37	II
UDB-619909	#4	9/16 - 18	1.25	.50	II
UDB-619910	#4	3/4 - 16	1.25	.50	II
UDB-619410	#3	3/4 - 16		1.12	III
UDB-619822	#4	3/4 - 16		1.12	III
UDB-619825	#5	3/4 - 16		1.12	III

HEADLESS WITH FEMALE THREAD



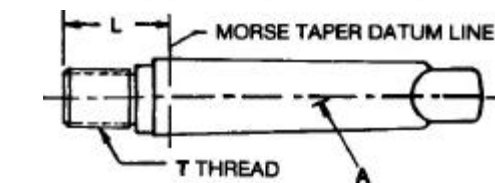
STYLE II



HEADLESS WITH MALE THREAD



STYLE III



★ MORSE TAPER REFERENCE

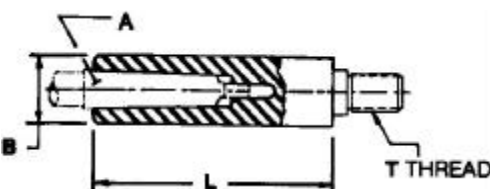
MORSE TAPER	DIAMETER AT DATUM LINE
#1	.475
#2	.700
#3	.938
#4	1.231
#5	1.748

MORSE TAPER ADAPTERS (FEMALE)

MORSE TAPER I.D. WITH STRAIGHT SHANK AND MALE THREAD



ALLOY STEEL HEAT TREATED PRECISION GROUND BLACK OXIDE FINISH

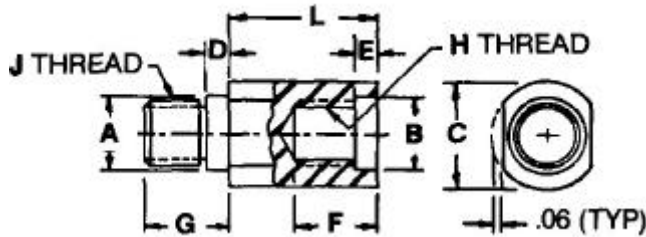


UNITED PART NO.	A ★ MORSE TAPER	T THD	L LENGTH	B DIA	FOR DRILL MOTORS:
UDB-613542	#1	3/8 - 24	3.00	1.00	QDA-10/10C/10CHD. QDP-15A/27A. QCO-B2
UDB-619533	#1	9/16 - 18	3.00	1.00	QDA-111/12. 158QGDA-RA-SU
UDB-612934	#2	3/8 - 24	3.56	1.25	QDA-10/10C. QDP-15A/27A
UDB-619405	#2	9/16 - 18	3.56	1.25	QDA-111/12. 158QGDA-RA-SU
UDB-619832	#2	3/4 - 16	3.56	1.25	QDA-13/14/16
UDB-619406	#3	9/16 - 18	4.44	1.25	QDA-111/12. 158QGDA-RA-SU
UDB-619819	#3	3/4 - 16	4.44	1.25	QDA-13/14/16
UDB-619820	#4	3/4 - 16	5.31	2.00	QDA-13/14/16

Nosepiece Spindle Extensions & Adapters

Spindle Extensions/ and Adapters

ADAPTER - SPINDLE EXTENSIONS



'L' VARIES FROM 1" TO 3"

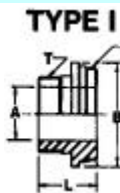
SPECIAL LENGTHS AVAILABLE.

ALLOY STEEL HEAT TREATED
BLACK OXIDE FINISH

For Coolant Style, add 'C' to Part No.



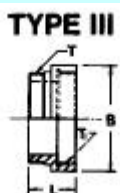
PART NO. Suffix = 'L' Length	A DIA	B DIA	C DIA	D LEN	E LEN	F DEPTH	G LEN	H FEMALE THD	H MALE THD
UDB-731201- 1	.3908 .3903	.3910 .3915	.62	.125	.162	.57	.50	3/8 - 24	3/8 - 24
UDB-731201 1-1/4									
UDB-731201 1-1/2									
UDB-731201 1-3/4									
UDB-731201 2									
UDB-731201 2-1/4									
UDB-731201 2-1/2									
UDB-731201 2-3/4									
UDB-731201 3	.5944 .5939	.5946 .5952	1.00	.156	.217	.68	.62	9/16 - 18	9/16 - 18
UDB-731202- 1									
UDB-731202 1-1/4									
UDB-731202 1-1/2									
UDB-731202 1-3/4									
UDB-731202 2									
UDB-731202 2-1/4									
UDB-731202 2-1/2									
UDB-731202 2-3/4									
UDB-731202 3	.7748 .7743	.7750 .7755	1.25	.234	.271	.96	.88	3/4 - 16	3/4 - 16
UDB-731203 1-1/4									
UDB-731203 1-1/2									
UDB-731203 1-3/4									
UDB-731203 2									
UDB-731203 2-1/4									
UDB-731203 2-1/2									
UDB-731203 2-3/4									
UDB-731203 3									



TYPE I



TYPE II



TYPE III

ADAPTER - MOTOR TO NOSEPIECE

PART NO.	T MOTOR THD LH	T1 NOSEPIECE THD LH	A DIA	B DIA	L LEN	TYPE
UDB-614240	1-9/16 - 20	1-9/16 - 20	1.15	1.75	.85	III
UDB-614244	1-9/16 - 20	1.825 - 18	1.19	2.00	1.50	I
UDB-614228	1-9/16 - 20	2-1/4 - 20	1.19	2.50	1.59	I
UDB-614658	1-9/16 - 20	2-1/4 - 20	1.25	2.37	1.37	II
UDB-614801	1-9/16 - 20	2-11/16 - 16	1.25	3.37	1.37	II
UDB-622401	1-37/64 - 18	1 - 20	.75	1.75	.87	I

FOR OTHER ADAPTER STYLES,
SEE PAGE O-14.

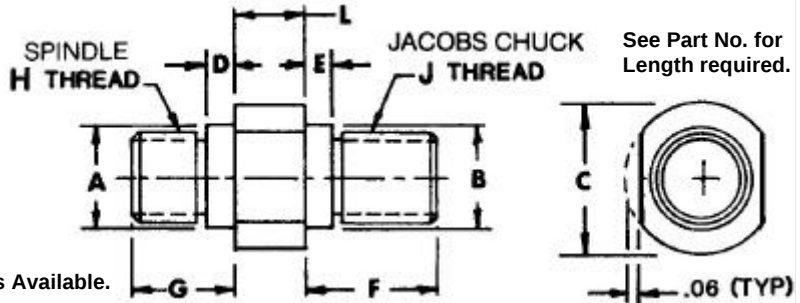
ALLOY STEEL HEAT TREATED
BLACK OXIDE FINISH



Adapters

Adapts Air Motors Spindles to Chucks

ADAPTERS—SPINDLES to THREE JAW CHUCKS & FEMALE FLUID CHUCK to SPINDLES



Special Lengths Available.

For Coolant Style, add 'C' to Part No.

ALLOY STEEL - HEAT TREATED - PRECISION GROUND - BLACK OXIDE FINISH

PART NO. (Suffix = 'L' Length)	A DIAMETER	B DIAMETER	C DIAMETER	D LENGTH	E LENGTH	F LENGTH	G LENGTH	J DRILL CHUCK THREAD	H SPINDLE THREAD
UDB-731301 - 1/4	.3908 .3903	.3798 .3793	.62	.125	.108	.56	.50	3/8 - 24	3/8 - 24
UDB-731301 - 1/2									
UDB-731301 - 3/4									
UDB-731301 - 1									
UDB-731301 - 1-1/4									
UDB-731301 - 1-1/2									
UDB-731301 - 1-3/4									
UDB-731301 - 2									
UDB-731301 - 2-1/4									
UDB-731301 - 2-1/2									
UDB-731302 - 1/4	.5944 .5939	.5048 .5043	1.00	.156	.108	.62	.62	1/2 - 20	9/16 - 18
UDB-731302 - 1/2									
UDB-731302 - 3/4									
UDB-731302 - 1									
UDB-731302 - 1-1/4									
UDB-731302 - 1-1/2									
UDB-731302 - 1-3/4									
UDB-731302 - 2									
UDB-731302 - 2-1/4									
UDB-731302 - 2-1/2									
UDB-731303 - 1/4	.5944 .5939	.7548 .7543	1.25	.156	.143	.62	.62	3/4 - 16	9/16 - 18
UDB-731303 - 1/2									
UDB-731303 - 3/4									
UDB-731303 - 1									
UDB-731303 - 1-1/4									
UDB-731303 - 1-1/2									
UDB-731303 - 1-3/4									
UDB-731303 - 2									
UDB-731303 - 2-1/4									
UDB-731303 - 2-1/2									
UDB-731304 - 1/4	.7748 .7743	.7548 .7543	1.25	.234	.143	.62	.88	3/4 - 16	3/4 - 16
UDB-731304 - 1/2									
UDB-731304 - 3/4									
UDB-731304 - 1									
UDB-731304 - 1-1/4									
UDB-731304 - 1-1/2									
UDB-731304 - 1-3/4									
UDB-731304 - 2									
UDB-731304 - 2-1/4									
UDB-731304 - 2-1/2									