

Designers & Manufacturers of Drilling & Tapping Solutions

**Arm and Cartridge Style Spindle Assemblies
without Universal joint Assemblies**

Arm PART #	Cartridge PART #	Spindle ID	TYPE	MIN. CENTERS	CAPACITY	"C" DIM.
A10-341	C10-341		#0 COLLET	13/32	0-#20 DRILL 0-#8 TAP	3.50
A20-352	C20-352	5/8"	ASA (#1MT)	1.0	1/16-3/8 DRILL 0-#6-5/16 TAP	5.25
A20-352A	C20-352A	5/8"	ASA (#1MT)	7/8	1/16-3/8 DRILL 0-#6-5/16 TAP	5.19
A20-354	C20-354	7/8"	ASA (#2MT)	1 1/4	1/16-9/16 DRILL 1/4-11/16 TAP	6.06
A20-356A	C20-356A	1-1/16"	ASA (#2MT)	1 9/16	1/16-9/16 DRILL 1/4-11/16 TAP	6.07
A20-361	C20-361		MT (#1)	11/16	1/16-3/8 DRILL 0-#6-5/16 TAP	5.38
A20-362	C20-362		MT (#2)	13/16	1/16-9/16 DRILL 1/4-11/16 TAP	5.94
A20-371	C20-371		#1 COLLET	1/2	1/16-1/4 DRILL 0-1/4 TAP	3.50
A20-372	C20-372		#2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	4.13
A20-374	C20-374		ADJ. DEPTH #1 COLLET	1/2	1/16-1/4 DRILL 0-1/4 TAP	5.0-5.5
A20-375	C20-375		ADJ. DEPTH #2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	5.5-6.25
A20-378	C20-378		PITCH COMP #1 COLLET	1/2	1/16-1/4 DRILL 0-1/4 TAP	4.7-5.19
A20-379	C20-379		PITCH COMP #2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	5.4-6.03
A30-352	C30-352	5/8"	ASA (#1MT)	1.0	1/16-3/8 DRILL 0-#6-5/16 TAP	5.25
A30-352A	C30-352A	5/8"	ASA (#1MT)	7/8	1/16-3/8 DRILL 0-#6-5/16 TAP	5.19
A30-353	C30-353	3/4"	ASA (#1MT)	1 1/4	1/16-3/8 DRILL 0-#6-5/16 TAP	5.25
A30-354	C30-354	7/8"	ASA (#2MT)	1 1/4	1/16-9/16 DRILL 1/4-11/16 TAP	6.06
A30-356A	C30-356A	1-1/16"	ASA (#2MT)	1 9/16	1/16-9/16 DRILL 1/4-11/16 TAP	6.07
A30-361	C30-361		MT (#1)	3/4	1/16-3/8 DRILL 0-#6-5/16 TAP	5.38
A30-362	C30-362		MT (#2)	13/16	1/16-9/16 DRILL 1/4-11/16 TAP	5.94
A30-372	C30-372		#2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	4.13
A30-375	C30-375		ADJ. DEPTH #2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	5.5-6.25
A30-372H	C30-372H		#2 COLLET	1	1/16-3/8 DRILL 0-3/8 TAP	4.13
A30-379	C30-379		PITCH COMP #2 COLLET	3/4	1/16-3/8 DRILL 0-3/8 TAP	5.41-6.03
A40-352	C40-352	5/8"	ASA (#1MT)	1	1/16-3/8 DRILL 0-#6-5/16 TAP	6.50
A40-352A	C40-352A	5/8"	ASA (#1MT)	7/8	1/16-3/8 DRILL 0-#6-5/16 TAP	5.25
A40-353	C40-353	3/4"	ASA (#1MT)	1 1/4	1/16-3/8 DRILL 0-#6-5/16 TAP	6.50
A40-354	C40-354	7/8"	ASA (#2MT)	1 3/8	1/16-9/16 DRILL 1/4-11/16 TAP	7.68
A40-354A	C40-354A	7/8"	ASA (#2MT)	1 1/4	1/16-9/16 DRILL 1/4-11/16 TAP	7.68
A40-375	C40-375		ADJ. DEPTH #2 COLLET	1	1/16-3/8 DRILL 0-3/8 TAP	6.78-7.47
A40-356	C40-356	1-1/16"	ASA (#2MT)	1 5/8	1/16-9/16 DRILL 1/4-11/16 TAP	7.75
A40-357	C40-357	1-1/4"	ASA (#3MT)	1 27/32	"V"-51/64 DRILL 1/2-7/8 TAP	8.13
A40-362	C40-362		MT (#2)	1	1/16-9/16 DRILL 1/4-11/16 TAP	7.25
A40-363	C40-363		MT (#3)	15/16	"V"-51/64 DRILL 1/2-7/8 TAP	8.31
A40-372	C40-372		#2 COLLET	1	1/16-3/8 DRILL 0-3/8 TAP	5.44
A40-379	C40-379		PITCH COMP #2 COLLET	1	1/16-3/8 DRILL 0-3/8 TAP	6.91-7.41
A60-354	C60-354	7/8"	ASA (#2MT)	1 3/8	1/16-9/16 DRILL 1/4-11/16 TAP	7.68
A60-355	C60-355	1"	ASA (#2MT)	1 1/2	1/16-9/16 DRILL 1/4-11/16 TAP	7.71
A60-356	C60-356	1-1/16"	ASA (#2MT)	1 5/8	1/16-9/16 DRILL 1/4-11/16 TAP	7.75
A60-357	C60-357	1-1/4"	ASA (#3MT)	1 27/32	"V"-51/64 DRILL 1/2-7/8 TAP	8.81
A60-358	C60-358	1-3/8"	ASA (#3MT)	2	"V"-51/64 DRILL 1/2-7/8 TAP	8.81
A60-363	C60-363		ASA (#3MT)	1 3/8	"V"-51/64 DRILL 1/2-7/8 TAP	8.31
A80-356	C80-356	1-1/16"	ASA (#2MT)	2	1/16-9/16 DRILL 1/4-11/16 TAP	7.81
A80-357	C80-357	1-1/4"	ASA (#3MT)	1 27/32	"V"-51/64 DRILL 1/2-7/8 TAP	8.81
A80-358	C80-358	1-3/8"	ASA (#3MT)	2	"V"-51/64 DRILL 1/2-7/8 TAP	8.81
A80-359	C80-359	1-7/8"	ASA (#4MT)	2 5/8	37/64-1 DRILL 3/4-1 1/4 TAP	9.94
A80-363	C80-363		MT (#3)	1 3/4	"V"-51/64 DRILL 1/2-7/8 TAP	8.38
A80-364	C80-364		MT (#4)	2	37/64-1 DRILL 3/4-1 1/4 TAP	9.38
33403* (20-371)	33443		#0 COLLET STATIONARY	1/2	#0-1/4	3.50
33407* (20-374)	33447		#0 COLLET ADJUSTABLE DEPTH	1/2	#0-1/4	5.0-5.5
33411* (20-378)	33451		#0 COLLET PITCH COMPENSATION	1/2	#0-#8	4.7-5.19
33415* (20-378)	33455		#0 COLLET PITCH TENSION	1/2	#0-#8	4.7-5.19
33423* (20-377)	33463		#2 COLLET STATIONARY	1	#0-3/8	4.0
33427* (20-352)	33467		#1 MT 5/8 ADJUSTABLE	1	#0-3/8 SMALL SHANK TAP	5.25
33431* (20-372)	33471		#5 COLLET STATIONARY	3/4	#0-3/8	4.13
33433* (20-375)	33473		#5 COLLET ADJUSTABLE	3/4	#0-3/8	5.5-6.25
33435* (20-379)	33475		#5 COLLET PITCH COMPENSATION	3/4	#0-3/8	5.4-6.03
33437** (20-379)	33477		#5 COLLET PITCH TENSION	3/4	#0-3/8	5.4-6.03
33441** (10-341 BI)	33481		#6 BORED STATIONARY	25/64	#0-#8	3.50

Note: * Use 33270 Universal Joint Assembly. Note:** Use 33275 Universal Joint Assembly
Note: When ordering compensating spindles please specify tension or compression.

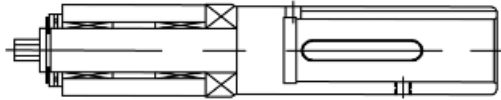


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Cartridge Spindle Assemblies



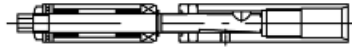
COLLET TYPE



ASA TYPE



PITCH-COMP. TYPE

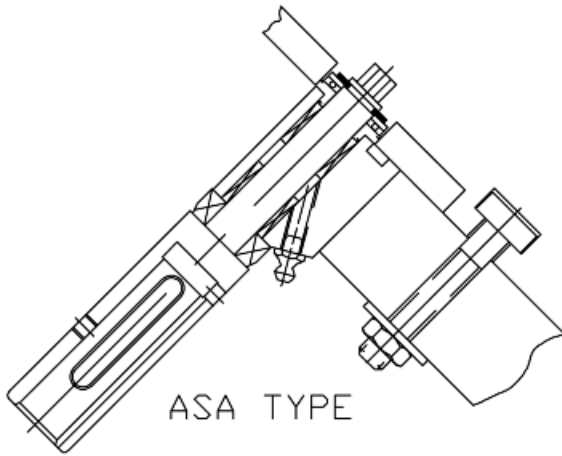


ADJUSTABLE
DEPTH TYPE

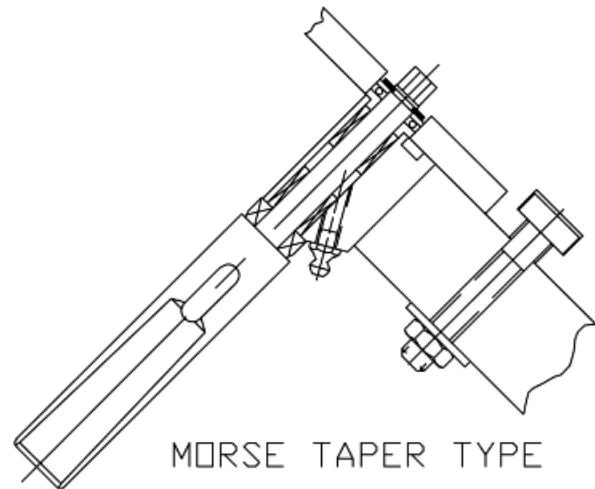


MORSE TAPER TYPE

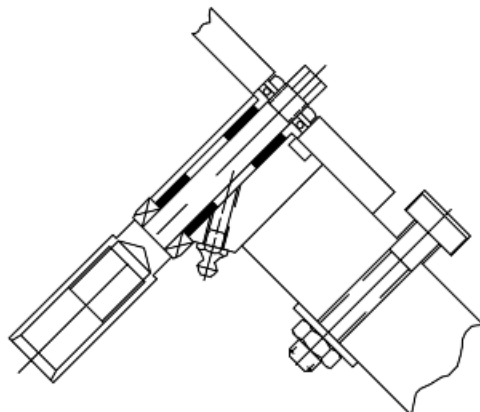
Arm Style Spindle Assemblies



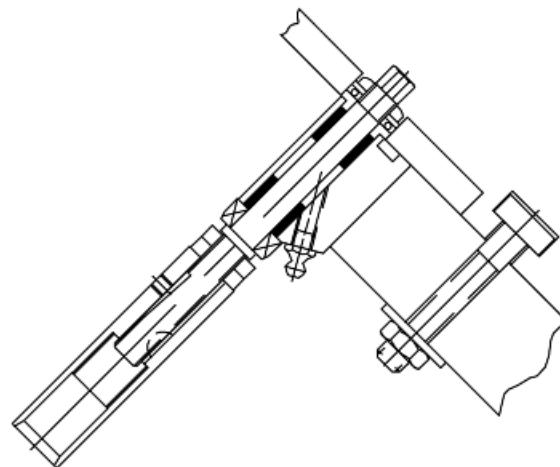
ASA TYPE



MORSE TAPER TYPE

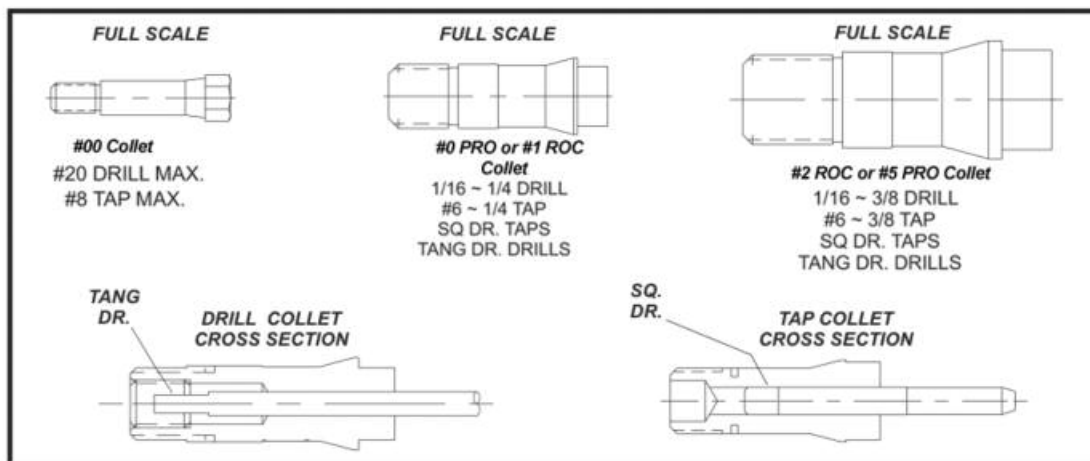
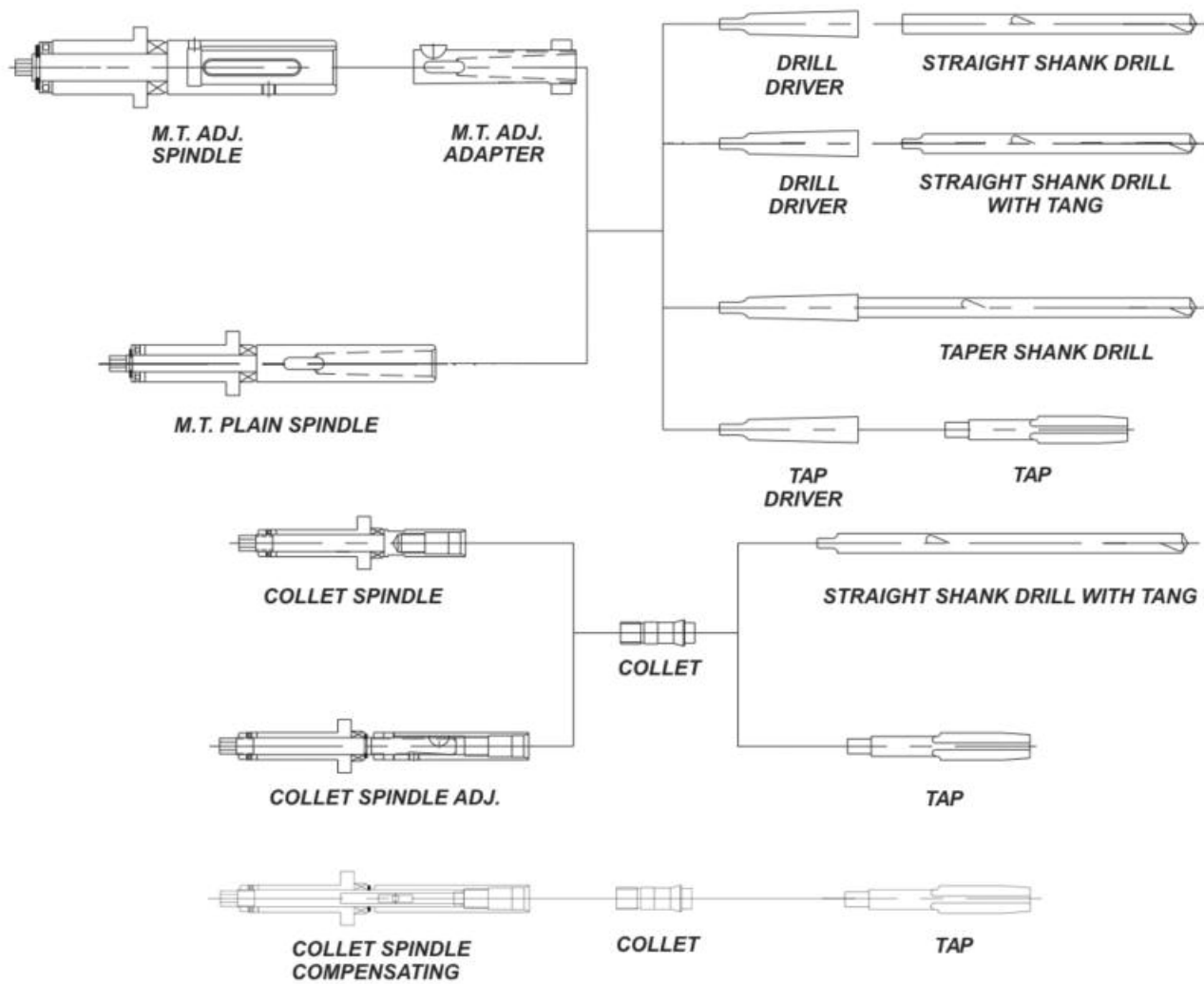


COLLET TYPE



ADJUSTABLE
DEPTH TYPE

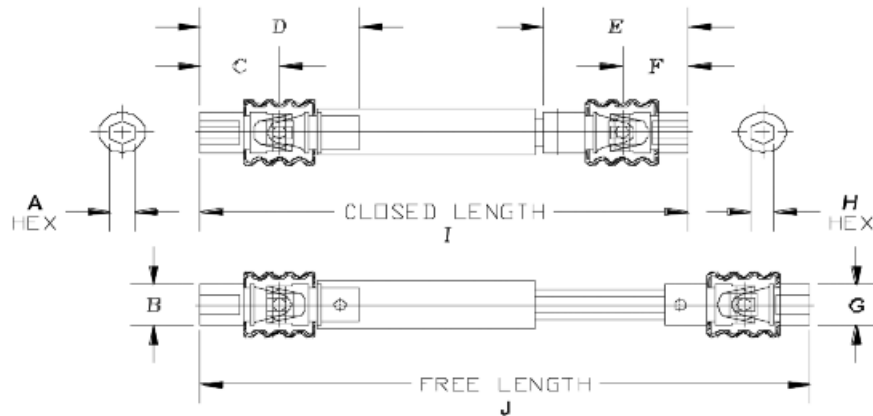
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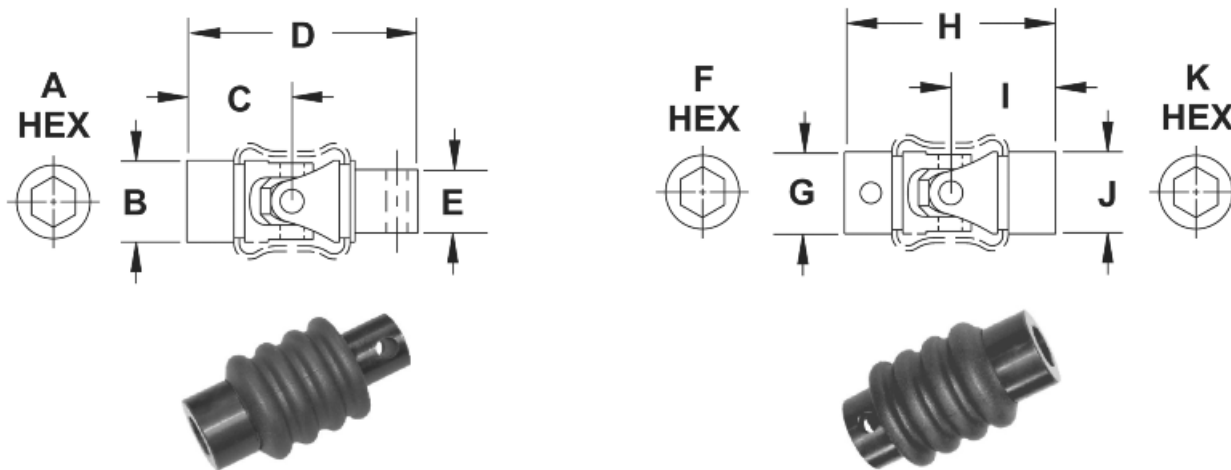


Procunier Part No.	RDH PART NUMBER	UPPER JOINT				LOWER JOINT				LENGTH	
		A HEX	B O.D.	C PIVOT CENTER TO END	D OVERALL	E OVERALL	F PIVOT CENTER TO END	G O.D.	H HEX	I CLOSED LENGTH	J FREE LENGTH
33275-1MU	UJ2010	1/4	0.50	0.730	1.46	1.545	0.730	0.38	11/64	4.630	5.800
33270-2MU	UJ2020					1.460	0.730	0.50	1/4	4.630	5.720
	UJ2020L					1.460	0.730	0.50	1/4	5.060	6.440
60490	UJ3010S	5/16	0.62	0.816	1.695	1.436	0.730	0.38	3/16	4.560	5.310
	UJ3020S					1.460	0.730	0.50	1/4	4.560	5.310
	UJ3030S					1.632	0.816	0.62	5/16	4.560	5.310
	UJ3010					1.436	0.730	0.38	3/16	5.310	6.500
60492	UJ3020	5/16	0.62	0.816	5.375	1.460	0.730	0.50	1/4	5.310	6.500
	UJ3030					1.632	0.816	0.62	5/16	5.375	6.562
	UJ3010L					1.460	0.730	0.38	3/16	7.560	9.630
	UJ3020L					1.460	0.730	0.50	1/4	7.560	9.630
60494	UJ3030L	5/16	0.62	0.816	5.375	1.632	0.816	0.62	5/16	7.560	9.630
	UJ4020					1.460	0.730	0.50	1/4	7.560	9.630
	UJ4030					1.632	0.816	0.62	5/16	7.560	9.630
	UJ4040					2.326	1.058	0.75	3/8	7.560	9.630
60496	UJ6030	1/2	1.00	1.250	2.940	1.632	0.816	0.62	5/16	7.690	9.250
	UJ6040					2.326	1.058	0.75	3/8	7.630	9.250
	UJ6060					2.500	1.250	1.00	1/2	7.690	9.300
	UJ6040L					2.326	1.058	0.75	3/8	9.310	11.000
	UJ6060L					2.500	1.250	1.00	1/2	9.410	10.870
UJ8040	UJ8040	3/4	1.25	1.879	3.758	2.326	1.058	0.75	3/8	10.630	13.750
	UJ8060					2.500	1.250	1.00	1/2	10.810	13.880
	UJ8080					3.758	1.879	1.25	3/4	11.750	14.630



Designers & Manufacturers of Drilling & Tapping Solutions

- *Multi-Spindle Universal Joints Are Standard Pin And Block Design*
- *Sizes Range From 3/8" To 1-1/4"*
- *Manufactured From The Highest Grade Alloy, Hardened And Ground To Close Tolerances*
- *Each Joint Is Fully Lubricated And Comes With An Easily Removable Boot*



UPPER JOINT

LOWER JOINT

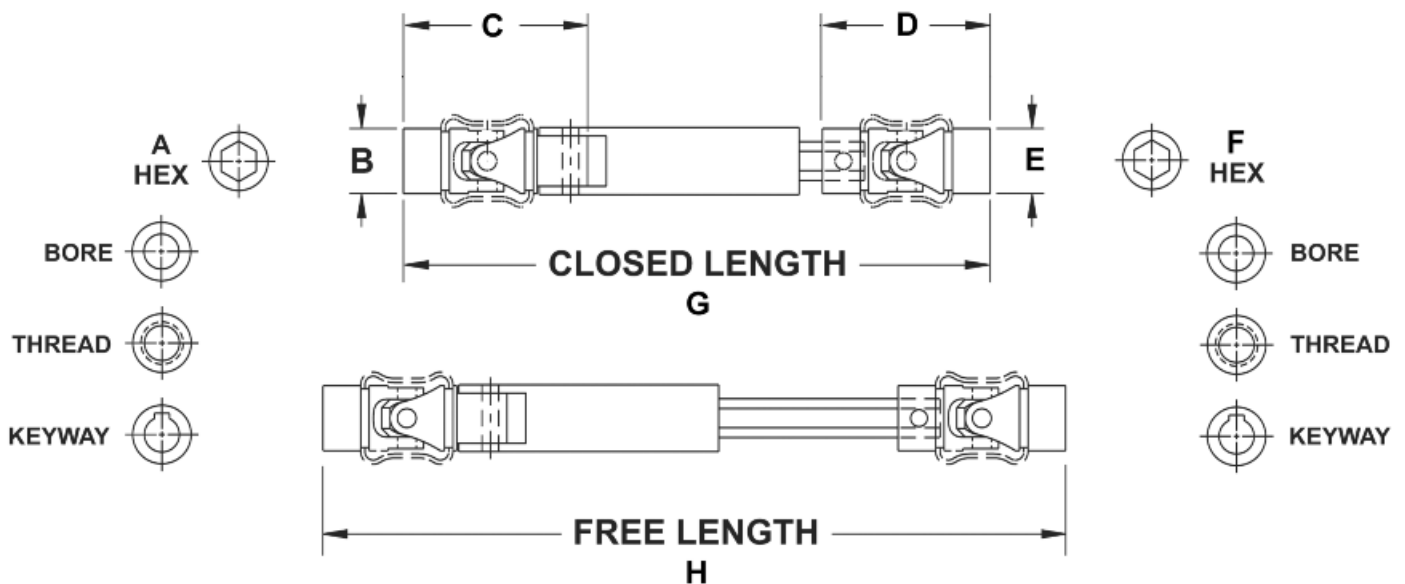
RDH PART NO.	A HEX	B O.D.	C PIVOT CENTER TO END	D OVERALL	E O.D.	F HEX	G O.D.	H OVERALL	I PIVOT CENTER TO END	J O.D.	K HEX
UJ10L-11/64						.187	.375	1.545	.720	.380	11/64
UJ10L-3/16						.187	.375	1.545	.720	.380	3/16
UJ20U-1/4	1/4	.500	.730	1.460	.391						
UJ20L-1/4						.312	.490	1.460	.730	.500	1/4
UJ30U-5/16	5/16	.625	.816	1.695	.391						
UJ30L-5/16						.312	.609	1.632	.816	.625	5/16
UJ40U-3/8	3/8	.750	1.268	2.536	.625						
UJ40L-3/8						.500	.750	2.326	1.058	.750	3/8
UJ60U-1/2	1/2	1.00	1.250	2.750	.750						
UJ60L-1/2						.625	1.00	2.500	1.250	1.00	1/2
UJ80U-3/4	3/4	1.250	1.879	3.745	.875						
UJ80L-3/4						.750	1.23	3.765	1.879	1.250	3/4

When designing with stock or custom universal assemblies, our engineers can assist you with your unique application at an affordable price.

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<p>1. Joint to be used for _____ _____ _____</p>	<p>4. Operating Enviroment Abrasive _____ Corrosive _____ Clean _____ Other _____</p>
<p>2. Nature of Operation Continuous _____ Intermittent _____</p>	<p>5. Actual Horsepower Torque _____ RPM _____</p>
<p>3. Operating Temperature Maximum _____ Minimum _____ Average _____</p>	<p>6. Angle of Operation Maximum _____ Minimum _____ Average _____</p>

PART NO.	UPPER JOINT			LOWER JOINT			LENGTH	
	A HEX, BORE...	B O.D.	C OVERALL	D OVERALL	E O.D.	F HEX, BORE...	G CLOSED LENGTH	H FREE LENGTH



Designers & Manufacturers of Drilling & Tapping Solutions



Drill Collets
Order Numbers for Drill Collets

#0 & #5 COLLET

#2 COLLET

#	DRILL SIZE		DECIMAL EQUIVALENT	# 0 PRO or #1 ROC	# 2 PRO	# 2 ROC or #5 PRO	# 1 MT DRILL DRIVER
	FRAC.	M.M.					
	1/16"		.0625	50601	52601	55601	56601
52			.0635	50602	52602	55602	56602
51			.0670	50603	52603	55603	56603
50			.0700	50604	52604	55604	56604
49			.0730	50605	52605	55605	56605
48			.0760	50606	52606	55606	56606
47	5/64"	2.0	.0785	50607	52607	55607	56607
46/45			.0820	50608	52608	55608	56608
44			.0860	50609	52609	55609	56609
43			.0890	50610	52610	55610	56610
42	3/32"		.0937	50611	52611	55611	56611
41/40			.0980	50612	52612	55612	56612
39/38			.1015	50613	52613	55613	56613
37			.1040	50614	52614	55614	56614
36			.1065	50615	52615	55615	56615
35	7/64"		.1100	50616	52616	55616	56616
34/33			.1130	50617	52617	55617	56617
32		3.0	.1160	50618	52618	55618	56618
31			.1200	50619	52619	55619	56619
	1/8"		.1250	50620	52620	55620	56620
30			.1285	50621	52621	55621	56621
		3.3	.1299	50622	52622	55622	56622
		3.4	.1339	50623	52623	55623	56623
29			.1360	50624	52624	55624	56624
		3.5	.1378	50625	52625	55625	56625
28	9/64"		.1406	50626	52626	55626	56626
27			.1440	50627	52627	55627	56627
26			.1470	50628	52628	55628	56628
25		3.8	.1496	50629	52629	55629	56629
24			.1520	50630	52630	55630	56630
23			.1540	50631	52631	55631	56631
	5/32"		.1562	50632	52632	55632	56632
22		4.0	.1575	50633	52633	55633	56633
20/21		4.1	.1614	50634	52634	55634	56634
19			.1660	50635	52635	55635	56635
18		4.3	.1693	50636	52636	55636	56636
	11/64"		.1719	50637	52637	55637	56637
17		4.4	.1732	50638	52638	55638	56638
16		4.5	.1772	50639	52639	55639	56639
15			.1800	50640	52640	55640	56640
14			.1820	50641	52641	55641	56641
13			.1850	50642	52642	55642	56642
	3/16"		.1875	50643	52643	55643	56643
12/11			.1910	50644	52644	55644	56644
10			.1935	50645	52645	55645	56645
9		5.0	.1968	50646	52646	55646	56646
8/7			.2010	50647	52647	55647	56647

NOTE: 1/8" and larger drills must be tang type drills.



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1 MT DRILL DRIVER

Drill Collets
Order Numbers for Drill Collets



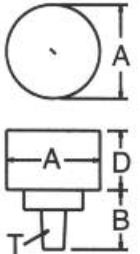
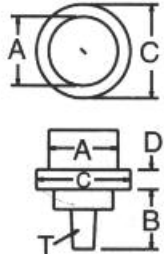
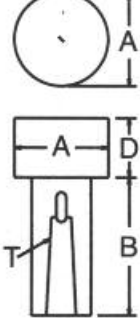
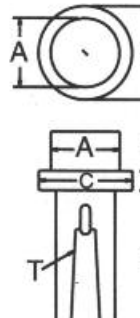
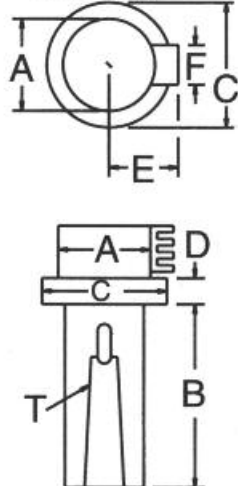
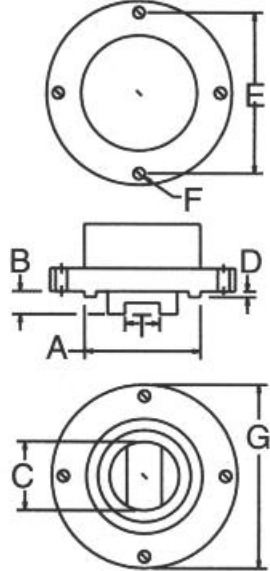
ADJUSTABLE ADAPTER

5/8" adjustable adapter for use with #1-MT drill driver. Order No. 56600.

DRILL SIZE			DECIMAL EQUIVALENT	#0 PRO OR #1 ROC	#2 PRO	#2 ROC OR #5 PRO	#1 MT DRILL DRIVER
#/LTR.	FRAC.	M.M.					
	13/64"		.2031	50648	52648	55648	56648
6/5			.2055	50649	52649	55649	56649
4			.2090	50650	52650	55650	56650
3			.2130	50651	52651	55651	56651
	7/32"		.2187	50652	52652	55652	56652
2			.2210	50653	52653	55653	56653
		5.7	.2244	50654	52654	55654	56654
1		5.8	.2283	50655	52655	55655	56655
A	15/64"		.2344	50656	52656	55656	56656
B		6.0	.2380	50657	52657	55657	56657
C			.2420	50658	52658	55658	56658
D		6.25	.2461	50659	52659	55659	56659
E	1/4"		.2500	50660	52660	55660	56660
		6.4	.2520		52661	55661	56661
F			.2570		52662	55662	56662
G			.2610		52663	55663	56663
H	17/64"		.2660		52664	55664	56664
		6.8	.2677		52665	55665	56665
I			.2720		52666	55666	56666
J		7.0	.2770		52667	55667	56667
K	9/32"		.2812		52668	55668	56668
		7.2	.2835		52669	55669	56669
		7.3	.2874		52670	55670	56670
L		7.4	.2913		52671	55671	56671
M	19/64"		.2969		52672	55672	56672
N			.3020		52673	55673	56673
		7.7	.3031		52674	55674	56674
		7.8	.3071		52675	55675	56675
	5/16"		.3125		52676	55676	56676
O		8.0	.3160		52677	55677	56677
		8.1	.3189		52678	55678	56678
P			.3230		52679	55679	56679
	21/64"		.3281		52680	55680	56680
Q			.3320		52681	55681	56681
		8.5	.3346		52682	55682	56682
R			.3390		52683	55683	56683
	11/32"		.3437		52684	55684	56684
		8.8	.3465		52685	55685	56685
S			.3480		52686	55686	56686
		8.9	.3504		52687	55687	56687
		9.0	.3543		52688	55688	56688
T	23/64"		.3594		52689	55689	56689
		9.2	.3622		52690	55690	56690
		9.3	.3661		52691	55691	56691
U			.3680		52692	55692	56692
		9.4	.3701		52693	55693	56693
	3/8"		.3750		52694	55694	56694

NOTE: 1/8" and larger drills must be tang type drills.

Designers & Manufacturers of Drilling & Tapping Solutions

<p>CONFIGURATION 1</p>  <p>A _____ B _____ D _____ T _____</p>	<p>CONFIGURATION 2</p>  <p>A _____ B _____ C _____ D _____ T _____</p>	<p>CONFIGURATION 3</p>  <p>A _____ B _____ D _____ T _____</p>
<p>CONFIGURATION 4</p>  <p>A _____ B _____ C _____ D _____ T _____</p>	<p>CONFIGURATION 5 Gear Rack</p>  <p>A _____ B _____ C _____ D _____ E _____ F _____ T _____</p>	<p>CONFIGURATION 6 Flange Mount</p>  <p>A _____ B _____ C _____ D _____ E _____ F _____ G _____</p>
<p>DIMENSIONS A & C REFER TO NON-ROTATING QUILL</p>		