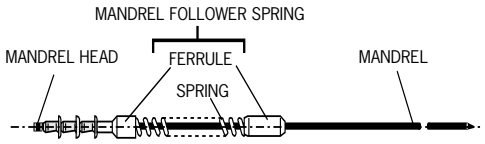
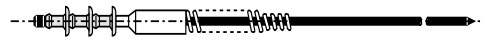
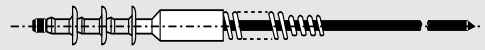
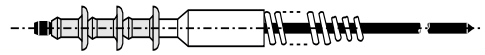
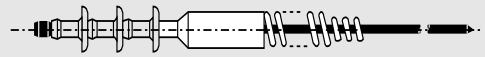
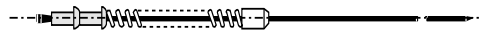
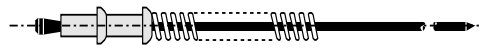
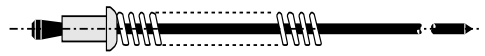
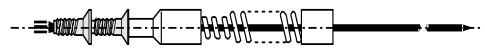
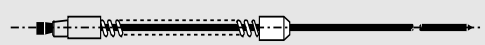
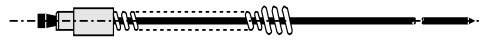
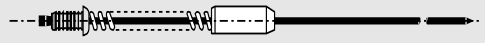
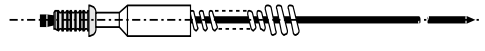
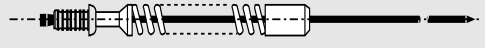
MANDREL FOLLOWER SPRINGS IDENTIFICATION AND ORIENTATION

FASTENER NAME	FASTENER SIZE	NOSE JAW (SEE NOSE EQUIPMENT SECTION)	MANDREL SIZE	MANDREL/MANDREL FOLLOWER SPRING AND FASTENER ASSEMBLY
BRIV®	3/32"	STANDARD TAPERED	ALL	
	3/32"	LIMITED ACCESS & LIMITED ACCESS CAM OPERATED	ALL	
	1/8"	ALL	ALL	
	5/32"	ALL	ALL	
	3/16"	ALL	ALL	
	6mm	STANDARD	ALL EXCEPT 3rd OVERSIZE	
CHOBERT® AVLUG® GROVIT®	3/32"	ALL EXCEPT STANDARD TAPERED, LIMITED ACCESS	ALL	
	3/32"	STANDARD TAPERED, LIMITED ACCESS	ALL	
	1/8"	ALL	ALL	
CHOBERT® GROVIT®	5/32"	ALL	ALL EXCEPT 3rd OVERSIZE	
	5/32"	ALL	3rd OVERSIZE	
	3/16"	ALL	ALL EXCEPT 2nd OVERSIZE	
	3/16"	ALL	2nd OVERSIZE	
CHOBERT®	1/4"	ALL	ALL	
RIVSCREW®	2.8mm 3mm	ALL	ALL	
	3.5mm 4mm	ALL	ALL	
AVSERT®	2.5mm 4 x 40 UNC	ALL	ALL	
	3mm 6 x 32 UNC	ALL	ALL	
AVTRONIC®	2.5mm	ALL	ALL	
	2.8mm	ALL EXCEPT LIMITED ACCESS	ALL	
	2.8mm	LIMITED ACCESS	ALL	

On speed fastening tools such as 70510, the nose equipment always consists of three elements: a Nose Jaw, a Mandrel and a Mandrel Follower Spring. All three items are matched to the fastener being placed and to the hole size in the application.

I M P O R T A N T

To avoid complete dismantling of the tool it is essential to check the orientation of the cursor before fitting the nose equipment to the tool. See 'CURSOR' section on page 11.

It is essential that the correct nose equipment is fitted to the tool to ensure both effective placing of the fastener and SAFE operation of the tool. READ THE SAFETY INSTRUCTIONS page 4 carefully.

To identify the correct combination of nose equipment to fit your tool first select a nose jaw by reading the section below then read the mandrel section to select part numbers both for the mandrel itself and for the mandrel follower spring. Mandrels and mandrel follower springs are illustrated on page 13.

To fit the nose equipment, follow the 'Loading and Reloading the Tool' procedure page 11.

Nose Jaws

I M P O R T A N T

The wrong nose jaw could result in an incorrectly placed fastener or unsatisfactory clench.

Nose Jaws can be categorised into four different basic shapes as illustrated on page 15. Even though internal dimensions will vary according to the intended fastener. Exact dimensions referring to the letters in the illustrations opposite are indicated in the 'Nose Jaw Selection Tables' on pages 16-17.

For a particular shape, there may be several options of end form giving access benefits or fastener placing enhancement.

Flat

- Normal end form of all nose jaws.
- Suitable on all applications with no access restrictions.

Universal

- Designed for use with universal head Chobert® fasteners.
- Can also be used with Briv® fasteners to obtain the highest possible clench. Note this reduces the maximum grip range of the Briv® fastener by approximately 0.4mm (0.015").

Recessed

- For use with Briv® fasteners ONLY.
- It gives a higher clench than a flat end form but less than a universal end form, with no reduction of the grip range of the fastener.

Tapered

- Available as shown in the 'Nose Jaw Selection Tables'.
- Allows greater accessibility than a flat end form and places the same range.

Head Forming

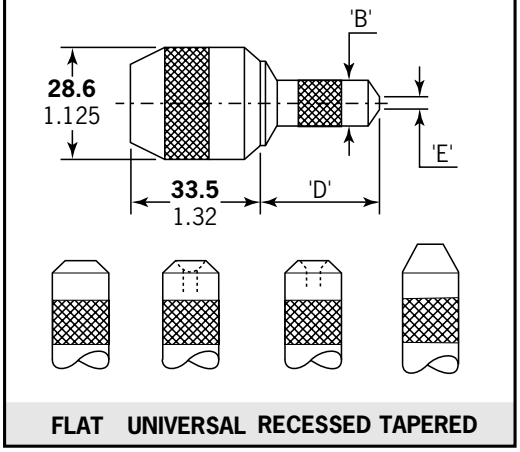
- For use with Rivscrew® fasteners ONLY.
- Deforms the head of the fastener to achieve good clench.

Nose Assemblies

Selecting a Nose Jaw

- List the name, size and material of the fastener to be placed.
- Look for this fastener in the first column of the nose jaw selection tables on page 16 if using imperial measurements and on page 17 if using metric units.
- Looking right across the table, take note of which nose jaws are available. ONLY those shown are available.
- Select which is most suitable for your application by referring to the respective nose jaw drawing. If your application has no access restriction, you should select the standard shape with a flat end form with or without cam.

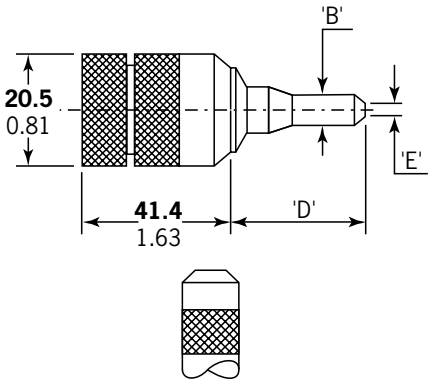
STANDARD



FLAT UNIVERSAL RECESSED TAPERED

Available in 4 different end forms to place all fasteners (except Rivscrew). Suitable on applications with no or little access restriction.

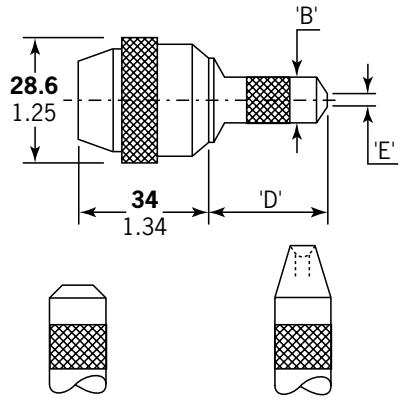
LIMITED ACCESS



FLAT

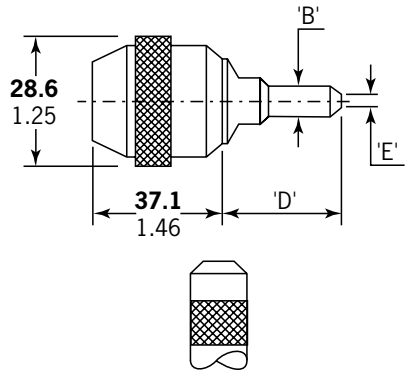
Available as shown in NOSE JAW SELECTION TABLE. Allows access into very restrictive applications.

STANDARD CAM OPERATED



FLAT HEAD FORMING (HF)

LIMITED ACCESS CAM OPERATED



FLAT

Available as shown in NOSE JAW SELECTION TABLE overleaf. Equivalent functions to the Standard and Limited Access above with the addition of a cam to ease and speed up the nose jaw opening thus the pod reloading procedure.

Nose Assemblies

Nose Jaw Selection - Imperial

The 'REF Nº' column cross references with the 'REF Nº' columns in the mandrel section. It identifies both the mandrel and mandrel follower spring required for a particular nose jaw with a specific fastener.

FASTENER	REF. Nº	NOSE JAW					REF. Nº	NOSE JAW				
		TYPE AND END FORM	PART Nº	DIMENSIONS 'B'	'D'	'E'		TYPE AND END FORM	PART Nº	DIMENSIONS 'B'	'D'	'E'
3/32" CHOBERT® & GROVIT®	1	STANDARD - FLAT	07150-03003	.36	1.30	.16	1	# STANDARD - UNIVERSAL	07150-03203	.36	1.33	.24
	1	STD. CAM OPERATED - FLAT	07170-04500	.36	1.30	.16	1	LTD. ACCESS CAM OPERATED	07177-03003	.20	1.18	.16
	2	STANDARD - TAPERED	07170-03103	.36	1.30	.16	3	LIMITED ACCESS	07274-01000	.22	1.07	.16
1/8" CHOBERT® & GROVIT®	4	STANDARD - FLAT	07150-03004	.41	1.18	.20	4	# STANDARD - UNIVERSAL	07150-03204	.41	1.22	.32
	4	STANDARD - TAPERED	07170-03104	.41	1.19	.20	4	STD. CAM OPERATED - FLAT	07170-04600	.41	1.18	.20
5/32" CHOBERT® & GROVIT®	5	STANDARD - FLAT	07150-03005	.48	1.30	.24	5	# STANDARD - UNIVERSAL	07150-03205	.48	1.35	.41
	5	STANDARD - TAPERED	07150-03105	.44	1.30	.24	5	STD. CAM OPERATED - FLAT	07170-04700	.48	1.30	.24
3/16" CHOBERT® & GROVIT®	6	STANDARD - FLAT	07150-03006	.56	1.18	.33	6	# STANDARD - UNIVERSAL	07150-03206	.56	1.24	.47
	6	STANDARD - TAPERED	07150-03106	.56	1.18	.33	6	STD. CAM OPERATED - FLAT	07170-04800	.56	1.18	.33
1/4" CHOBERT®	7	STANDARD - FLAT	07150-03008	.64	1.18	.39	7	STD. CAM OPERATED - FLAT	07170-04900	.64	1.18	.39
3/32" BRIV® Brass only	8	STANDARD - TAPERED	07170-03103	.36	1.30	.15	9	LTD. ACCESS CAM OPERATED	07177-03003	.20	1.18	.16
	9	LIMITED ACCESS	07274-01000	.22	1.07	.16	-	-	-	-	-	-
1/8" BRIV® Al. Alloy, Brass, Steel	10	STANDARD - FLAT	07150-03004	.41	1.18	.20	10	STANDARD - RECESSED	07170-03004	.41	1.20	.30
	10	STANDARD - TAPERED	07170-03104	.41	1.19	.20	-	-	-	-	-	-
5/32" BRIV® Al. Alloy, Brass, Steel	11	STANDARD - FLAT	07150-03005	.48	1.30	.24	11	STANDARD - RECESSED	07170-03005	.48	1.32	.41
5/32" BRIV® St.Steel only	12	STANDARD - FLAT	07150-03005	.48	1.30	.24	12	STANDARD - RECESSED	07170-03005	.48	1.32	.41
				.								
3/16" BRIV® Al. Alloy, Brass, Steel	13	STANDARD - FLAT	07150-03006	.56	1.18	.33	13	STANDARD - RECESSED	07170-03006	.56	1.20	.47
3/16" BRIV® St.Steel only	14	STANDARD - FLAT	07150-03006	.56	1.18	.33	14	STANDARD - RECESSED	07170-03006	.56	1.20	.47
6mm BRIV® Al. Alloy, Steel	15	STD. CAM OPERATED	07170-05600	.64	1.21	.52	15	STANDARD - FLAT	07170-05800	.64	1.21	.52
								-	-	-	-	-
3/32" AVLUG®	16	STANDARD - FLAT	07150-03003	.36	1.30	.16	16	STANDARD - TAPERED	07150-03103	.36	1.30	.16
	16	STD. CAM OPERATED - FLAT	07170-04500	.36	1.30	.16	-	-	-	-	-	-
1/8" AVLUG®	17	STANDARD - FLAT	07150-03004	.41	1.18	.20	17	STANDARD - TAPERED	07170-03104	.41	1.19	.20
	17	STD. CAM OPERATED - FLAT	07170-04600	.41	1.18	.20	-	-	-	-	-	-
2.5mm AVTRONIC®	18	STANDARD - FLAT	07150-03003	.36	1.30	.16	18	LTD. ACCESS CAM OPERATED	07271-08000	.41	1.18	.16
2.8mm AVTRONIC®	19	STANDARD - FLAT	07271-05600	.36	1.30	.16	20	LTD. ACCESS CAM OPERATED	07271-08100	.40	1.18	.16
2.8mm RIVSCREW®	21	STD. CAM OPERATED - HF	07271-03000	.41	1.18	.24	-	-	-	-	-	-
3.0mm RIVSCREW®	22	STD. CAM OPERATED - HF	07271-03000	.41	1.18	.24	-	-	-	-	-	-
3.5mm RIVSCREW®	23	STD. CAM OPERATED - HF	07271-03500	.41	1.18	.24	-	-	-	-	-	-
4.0mm RIVSCREW®	24	STD. CAM OPERATED - HF	07271-04000	.41	1.18	.25	-	-	-	-	-	-

These nose jaws are suitable for placing Chobert® fasteners with a Universal Head Form. When used on the equivalent size of Briv®, the highest possible clench is achieved. Note that when using Briv® fasteners, the maximum grip is reduced by approximately 0.015" (0.4 mm).

Nose Assemblies

Nose Jaw Selection - Metric

FASTENER	REF. N°	NOSE JAW					REF. N°	NOSE JAW				
		TYPE AND END FORM	PART N°	DIMENSIONS 'B'	'D'	'E'		TYPE AND END FORM	PART N°	DIMENSIONS 'B'	'D'	'E'
3/32" CHOBERT® & GROVIT®	1	STANDARD - FLAT	07150-03003	9.14	33.02	4.06	1	# STANDARD - UNIVERSAL	07150-03203	9.14	33.78	6.10
	1	STD. CAM OPERATED - FLAT	07170-04500	9.14	33.02	4.06	1	LTD. ACCESS CAM OPERATED	07177-03003	5.08	29.97	4.06
	2	STANDARD - TAPERED	07170-03103	9.14	33.02	5.08	3	LIMITED ACCESS	07274-01000	5.59	27.18	4.06
1/8" CHOBERT® & GROVIT®	4	STANDARD - FLAT	07150-03004	10.41	29.97	6.10	4	# STANDARD - UNIVERSAL	07150-03204	10.41	30.99	8.13
	4	STANDARD - TAPERED	07170-03104	10.41	30.23	6.10	4	STD. CAM OPERATED - FLAT	07170-04600	10.41	29.97	5.08
5/32" CHOBERT® & GROVIT®	5	STANDARD - FLAT	07150-03005	12.19	33.02	8.38	5	# STANDARD - UNIVERSAL	07150-03205	12.19	34.29	10.41
	5	STANDARD - TAPERED	07150-03105	11.18	33.02	8.38	5	STD. CAM OPERATED - FLAT	07170-04700	12.19	33.02	6.10
3/16" CHOBERT® & GROVIT®	6	STANDARD - FLAT	07150-03006	14.22	29.97	9.91	6	# STANDARD - UNIVERSAL	07150-03206	14.22	31.50	11.94
	6	STANDARD - TAPERED	07150-03106	14.22	29.97	3.81	6	STD. CAM OPERATED - FLAT	07170-04800	14.22	29.97	8.38
1/4" CHOBERT®	7	STANDARD - FLAT	07150-03008	16.26	29.97	4.06	7	STD. CAM OPERATED - FLAT	07170-04900	16.26	29.97	9.91
3/32" BRIV® Brass only	8	STANDARD - TAPERED	07170-03103	9.14	33.02	5.08	9	LTD. ACCESS CAM OPERATED	07177-03003	5.08	29.97	4.06
	9	LIMITED ACCESS	07274-01000	5.59	27.18	5.08	-	-	-	-	-	-
1/8" BRIV® Al. Alloy, Brass, Steel	10	STANDARD - FLAT	07150-03004	10.41	29.97	6.10	10	STANDARD - RECESSED	07170-03004	10.41	30.48	7.62
	10	STANDARD - TAPERED	07170-03104	10.41	30.23	6.10	-	-	-	-	-	
5/32" BRIV® Al. Alloy, Brass, Steel	11	STANDARD - FLAT	07150-03005	12.19	33.02	8.38	11	STANDARD - RECESSED	07170-03005	12.19	33.53	10.41
5/32" BRIV® St.Steel only	12	STANDARD - FLAT	07150-03005	12.19	33.02	8.38	12	STANDARD - RECESSED	07170-03005	12.19	33.53	10.41
3/16" BRIV® Al. Alloy, Brass, Steel	13	STANDARD - FLAT	07150-03006	14.22	29.97	4.06	13	STANDARD - RECESSED	07170-03006	14.22	30.48	11.94
3/16" BRIV® St.Steel only	14	STANDARD - FLAT	07150-03006	14.22	29.97	4.06	14	STANDARD - RECESSED	07170-03006	14.22	30.48	11.94
6mm BRIV® Al. Alloy, Steel	15	STD. CAM OPERATED	07170-05600	16.33	30.65	13.14	15	STANDARD - FLAT	07170-05800	16.33	30.65	13.14
							-	-	-			
3/32" AVLUG®	16	STANDARD - FLAT	07150-03003	9.14	33.02	4.06	16	STANDARD - TAPERED	07150-03103	9.14	33.02	4.06
	16	STD. CAM OPERATED - FLAT	07170-04500	9.14	33.02	4.06	-	-	-	-	-	-
1/8" AVLUG®	17	STANDARD - FLAT	07150-03004	10.41	29.97	5.08	17	STANDARD - TAPERED	07170-03104	10.41	29.97	5.08
	17	STD. CAM OPERATED - FLAT	07170-04600	10.41	29.97	5.08	-	-	-	-	-	-
2.5mm AVTRONIC®	18	STANDARD - FLAT	07150-03003	9.14	33.02	4.06	18	LTD. ACCESS CAM OPERATED	07271-08000	10.41	29.97	4.06
2.8mm AVTRONIC®	19	STANDARD - FLAT	07271-05600	9.14	33.02	4.06	20	LTD. ACCESS CAM OPERATED	07271-08100	10.16	29.97	4.06
2.8mm RIVSCREW®	21	STD. CAM OPERATED - HF	07271-03000	10.41	29.97	6.10	-	-	-	-	-	-
3.0mm RIVSCREW®	22	STD. CAM OPERATED - HF	07271-03000	10.41	29.97	6.10	-	-	-	-	-	-
3.5mm RIVSCREW®	23	STD. CAM OPERATED - HF	07271-03500	10.41	29.97	6.10	-	-	-	-	-	-
4.0mm RIVSCREW®	24	STD. CAM OPERATED - HF	07271-04000	10.41	29.97	6.35	-	-	-			

These nose jaws are suitable for placing Chobert® fasteners with a Universal Head Form. When used on the equivalent size of Briv®, the highest possible clench is achieved. Note that when using Briv® fasteners, the maximum grip is reduced by approximately 0.015" (0.4 mm).

Mandrels and Mandrel Follower Springs

Mandrels and mandrel follower springs, illustrated on page 13 need to be selected to suit the fastener type and size as well as the size of the hole in the application. Use of the wrong mandrel could increase the risk of breakage and the wear of the mandrel head. Feeding problems could occur if the wrong mandrel follower spring is used.

I M P O R T A N T

READ THE SAFETY INSTRUCTIONS page 4 carefully.
While a small amount of wear and marking will naturally occur through normal and correct use of mandrels, they must be regularly examined for excessive wear and marking, with particular attention to the head diameter, the tail jaw gripping area of the shank or heavy pitting of the shank and any mandrel distortion. Mandrels which fail during use could forcibly exit the tool. It is the customer's responsibility to ensure that mandrels are replaced before any excessive levels of wear and always before the maximum recommended number of placings. Contact your Avdel representative who will let you know what that figure is by measuring the broach load of your application with our calibrated measuring tool. These tools can also be purchased under part number 07900-09080, supplied with all necessary information for testing.

Chobert® and Grovit® - Imperial

For mandrel or mandrel follower spring selection, follow instructions above.

FASTENER	REF. N°	HOLE SIZE	STANDARD MANDREL - GREEN					HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW					SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.	
3/32" CHOBERT® & GROVIT®	1	AS REC.	.0725	07150-07003	.166	07150-09003	.071	-	-	-	-	-	-	07150-06803
	1	-	-	-	-	-	-	+.0035	.076	-	-	07150-09103	.078	07150-06803
	2	AS REC.	.0725	07150-07003	.166	07150-09003	.071	-	-	-	-	-	-	07170-06873
	2	-	-	-	-	-	-	+.0035	.076	-	-	07150-09103	.078	07170-06873
	3	AS REC.	.0725	07150-07003	.166	07150-09003	.071	-	-	-	-	-	-	07170-06903
	3	-	-	-	-	-	-	+.0035	.076	-	-	07150-09103	.078	07170-06903
1/8" CHOBERT® & GROVIT®	4	AS REC.	.088	07150-07004	.216	07150-09004	.090	+.004	.092	07150-07104	.237	07150-09104	.098	07150-06804
5/32" CHOBERT® & GROVIT®	5	AS REC.	.107	07150-07005	.244	07150-09005	.100	+.008	.115	07150-07105	.284	07150-09105	.116	07170-06875
3/16" CHOBERT® & GROVIT®	6	AS REC.	.132	07150-07006	.247	07150-09006	.102	+.014	.146	07150-07106	.320	07150-09106	.130	07170-06876
1/4" CHOBERT® & GROVIT®	7	AS REC.	.184	07150-07008	.268	07150-09008	.110	+.012	.196	07150-07108	.330	07150-09108	.134	07150-06808

FASTENER	REF. N°	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE					HOLE SIZE	3RD OVERSIZE MANDREL - RED					SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.	
3/32" CHOBERT® & GROVIT®	1	+.0035	.076	07150-07103	.185	-	-	-	-	-	-	-	-	07150-06803
	2	+.0035	.076	07150-07103	.185	-	-	-	-	-	-	-	-	07170-06873
	3	+.0035	.076	07150-07103	.185	-	-	-	-	-	-	-	-	07170-06903
1/8" CHOBERT® & GROVIT®	4	+.010	.098	07150-07204	.268	07150-09204	.110	+.014	.102	07150-07304	2.88	07150-09304	.118	07150-06804
5/32" CHOBERT® & GROVIT®	5	+.015	.122	07150-07205	.320	07150-09205	.130	-	-	-	-	-	-	07170-06875
	5	-	-	-	-	-	-	+.025	.132	07150-07305	.372	07150-09305	.150	07150-06805
3/16" CHOBERT® & GROVIT®	6	+.024	.156	07150-07206	.372	07150-09206	.150	-	-	-	-	-	-	07150-06806

The tables on pages 18-22 list the part numbers of all mandrels and mandrel follower springs per fastener group of fasteners, i.e. for Chobert® and Grovit®.

While fastener sizes are always shown in their specified units, each table has been produced twice to offer dimensions in imperial and metric. These 'Mandrel Selection' tables cross-reference with the 'Nose Jaw Selection' tables on pages 16 and 17 through the 'Ref. No.' column.

It is the diameter of the head at the end of a mandrel which when pulled through controls the expansion of the fastener body.

While there are different head shapes to suit different type of fasteners (see illustration on page 21), progressive head sizes are needed to reflect manufacturing tolerances on the diameter of the hole in your application so that the fastener always expands sufficiently to fill the hole.

Too large a mandrel head would over stress the mandrel and mandrels that fail during use could forcibly exit the tool. Selection tables are arranged into four 'mandrel size' sections, ranging from 'standard' to '3rd oversize', each being colour coded as per the end of the mandrel heads themselves.

Chobert® and Grovit® - Metric

FASTENER	REF. N°	HOLE SIZE	STANDARD MANDREL - GREEN					HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW					SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.	
3/32" CHOBERT® & GROVIT®	1	AS REC.	1.84	07150-07003	4.22	07150-09003	1.80	-	-	-	-	-	-	07150-06803
	1	-	-	-	-	-	-	+.09	1.93	-	-	07150-09103	1.98	07150-06803
	2	AS REC.	1.84	07150-07003	4.22	07150-09003	1.80	-	-	-	-	-	-	07170-06873
	2	-	-	-	-	-	-	+.09	1.93	-	-	07150-09103	1.98	07170-06873
	3	AS REC.	1.84	07150-07003	4.22	07150-09003	1.80	-	-	-	-	-	-	07170-06903
	3	-	-	-	-	-	-	+.09	1.93	-	-	07150-09103	1.98	07170-06903
1/8" CHOBERT® & GROVIT®	4	AS REC.	2.24	07150-07004	5.49	07150-09004	2.29	+.10	2.34	07150-07104	6.02	07150-09104	2.49	07150-06804
5/32" CHOBERT® & GROVIT®	5	AS REC.	2.72	07150-07005	6.20	07150-09005	2.54	+.20	2.92	07150-07105	7.21	07150-09105	2.95	07170-06875
3/16" CHOBERT® & GROVIT®	6	AS REC.	3.35	07150-07006	6.27	07150-09006	2.59	+.35	3.71	07150-07106	8.13	07150-09106	3.30	07170-06876
1/4" CHOBERT® & GROVIT®	7	AS REC.	4.67	07150-07008	6.81	07150-09008	2.79	+.30	4.98	07150-07108	8.38	07150-09108	3.40	07150-06808

FASTENER	REF. N°	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE					HOLE SIZE	3RD OVERSIZE MANDREL - RED					SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	# S/R MANDREL PART N°	P MAX.	
3/32" CHOBERT® & GROVIT®	1	+.09	1.93	07150-07103	4.70	-	-	-	-	-	-	-	-	07150-06803
	2	+.09	1.93	07150-07103	4.70	-	-	-	-	-	-	-	-	07170-06873
	3	+.09	1.93	07150-07103	4.70	-	-	-	-	-	-	-	-	07170-06903
1/8" CHOBERT® & GROVIT®	4	+.25	2.49	07150-07204	6.81	07150-09204	2.79	+.35	2.59	07150-07304	7.32	07150-09304	3.00	07150-06804
5/32" CHOBERT® & GROVIT®	5	+.38	3.10	07150-07205	8.13	07150-09205	3.30	-	-	-	-	-	-	07170-06875
	5	-	-	-	-	-	-	+.63	3.35	07150-07305	9.45	07150-09305	3.81	07150-06805
3/16" CHOBERT® & GROVIT®	6	+.60	3.96	07150-07206	9.45	07150-09206	3.81	-	-	-	-	-	-	07150-06806

To find the correct part number of a mandrel for a particular application, read the instructions below after you have gathered the following
information as per example alongside. Answers for the example are shown in *grey italic*.

FASTENER NAME	*example*	*Chobert®*
FASTENER SIZE		*1/8"*
DATASHEET		*Series 1125*
APPLICATION HOLE SIZE		*0.1335"*
CLEARANCE BEHIND APPLICATION		*Infinite*
'REF.Nº' FROM NOSE JAW SELECTION TABLE		*5 (standard flat)*

- Subtract the minimum hole size recommended (AS REC.) in the fastener datasheet from the actual application hole size. *-example: 0.005.*
- Turn to the page with the 'Mandrel Selection' table for your fastener, selecting either the imperial or the metric dimensions table (pages 18 to 20). *-example: page 18.*
- Staring with the 'Standard Mandrel - Green' section, find your fastener size in the left-hand column. *-example 1/8" Chobert® & Grovit®.*
- If you selected a nose jaw with which to place your fastener, you should now be able to find a line within your fastener section with the same 'Ref No.' as that from the 'Nose Jaw Selection' table. *-example: 5.* This is your line 'Ref. No.' in which you will find both your mandrel and mandrel follower spring part number. This line continues into the second half of the table for the '2nd' and '3rd' oversize mandrels.
- Scan along the line to the 'hole size' columns and select which ever is the nearest or equal to the figure calculated in step one. You may now read the mandrel part number next to the 'hole size'. *-example: 07150-06104*
- For Chobert® and Grovit® only, most mandrels are also available in a 'short reach' version (see illustration on page 21). Short reach mandrels are used to minimise the possibility of the mandrel head contacting a read obstruction. This would result in the underside of the fastener head not seating properly on the application surface, causing a lack on clench in the joint.
- Whichever size mandrel you settle on, you will also need to check the 'P' figure against that mandrel is adequate. 'P' is the clearance required for the mandrel head at the back of the application IN ADDITION to the length of the fastener protruding through the application, as shown in the illustration on page 21.
- You may now read the corresponding mandrel follower spring part number in the right-hand column of the table. *-example: 07150-06804.* In all cases, satisfactory clenching of the joint should be assessed particularly if the size of the hole in your application is very close to the next oversize hole condition, when it will be safe to select the greater size of mandrel to obtain a higher clench. REMEMBER that this will increase the broach load and reduce the mandrel life.

Briv® - Imperial

For mandrel or mandrel follower spring selection, follow instructions on page 18.

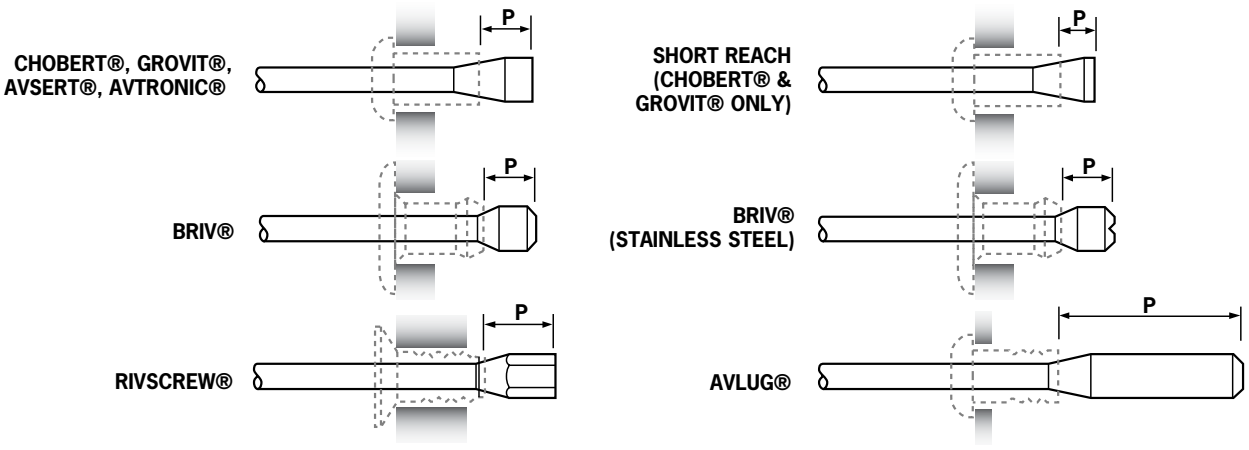
FASTENER	REF. Nº	HOLE SIZE	STANDARD MANDREL - GREEN			HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW			SPRING PART Nº
			HEAD Ø	MANDREL PART Nº	P MAX.		HEAD Ø	MANDREL PART Nº	P MAX.	
3/32" BRIV® Brass only	8	AS REC.	.072	07150-07013	.119	+.004	.076	07150-07113	.123	07170-06873
	9	AS REC.	.072	07150-07013	.119	+.004	.076	07150-07113	.123	07170-06903
1/8" BRIV® Al. Alloy, Brass, Steel	10	AS REC.	.092	07271-07414	.120	+.005	.097	07271-07514	.126	07150-06814
5/32" BRIV® Al. Alloy, Brass, Steel	11	AS REC.	.110	07150-07015	.136	+.005	.115	07150-07115	.142	07170-06875
5/32" BRIV® St.Steel only	12	AS REC.	.120	07170-07805	.126	+.005	.125	07170-07825	.132	07170-06875
3/16" BRIV® Al. Alloy, Brass, Steel	13	AS REC.	.141	07150-07016	.157	+.005	.146	07150-07116	.164	07170-06876
3/16" BRIV® St.Steel only	14	AS REC.	.153	07170-07806	.150	+.005	.158	07170-07826	.156	07170-06876
6mm BRIV® Al. Alloy, Steel	15	AS REC.	.179	07150-07018	.165	+.005	.184	07150-07118	.171	07150-07846

FASTENER	REF. Nº	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE			HOLE SIZE	3RD OVERSIZE MANDREL - RED			SPRING PART Nº
			HEAD Ø	MANDREL PART Nº	P MAX.		HEAD Ø	MANDREL PART Nº	P MAX.	
3/32" BRIV® Brass only	8	+.008	.079	07150-07213	.126	-	-	-	-	07170-06873
	9	+.008	.079	07150-07213	.126	-	-	-	-	07170-06903
1/8" BRIV® Al. Alloy, Brass, Steel	10	+.010	.102	07271-07614	.133	-	-	-	-	07150-06814
5/32" BRIV® Al. Alloy, Brass, Steel	11	+.010	.120	07150-07215	.149	-	-	-	-	07170-06875
3/16" BRIV® Al. Alloy, Brass, Steel	13	+.010	.151	07150-07216	.170	+.012	.153	07150-07316	.173	07170-06876
6mm BRIV® Al. Alloy, Steel	15	+.010	.189	07150-07218	.177	-	-	-	-	07150-07846

Mandrel Head Types and 'P' Length

Mandrels for stainless steel Briv® are easily identifiable by a 'V' cut in the end of the mandrel heads.

When using curved nose jaws, mandrels have to be bent by hand to match the curvature of the nose jaw, thus ensuring good feed of fasteners.



Briv® - Metric

FASTENER	REF. N°	HOLE SIZE	STANDARD MANDREL - GREEN			HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
3/32" BRIV® Brass only	8	AS REC.	1.83	07150-07013	3.02	+.10	1.93	07150-07113	3.12	07170-06873
	9	AS REC.	1.83	07150-07013	3.02	+.10	1.93	07150-07113	3.12	07170-06903
1/8" BRIV® Al. Alloy, Brass, Steel	10	AS REC.	2.34	07271-07414	3.05	+.13	2.46	07271-07514	3.20	07150-06814
5/32" BRIV® Al. Alloy, Brass, Steel	11	AS REC.	2.79	07150-07015	3.45	+.13	2.92	07150-07115	3.61	07170-06875
5/32" BRIV® St.Steel only	12	AS REC.	3.05	07170-07805	3.20	+.13	3.18	07170-07825	3.35	07170-06875
3/16" BRIV® Al. Alloy, Brass, Steel	13	AS REC.	3.58	07150-07016	3.99	+.13	3.71	07150-07116	4.17	07170-06876
3/16" BRIV® St.Steel only	14	AS REC.	3.89	07170-07806	3.81	+.13	4.01	07170-07826	3.96	07170-06876
6mm BRIV® Al. Alloy, Steel	15	AS REC.	4.54	07150-07018	4.18	+.13	4.67	07150-07118	4.34	07150-07846

FASTENER	REF. N°	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE			HOLE SIZE	3RD OVERSIZE MANDREL - RED			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
3/32" BRIV® Brass only	8	+.20	2.01	07150-07213	3.20	-	-	-	-	07170-06873
	9	+.20	2.01	07150-07213	3.20	-	-	-	-	07170-06903
1/8" BRIV® Al. Alloy, Brass, Steel	10	+.25	2.59	07271-07614	3.38	-	-	-	-	07150-06814
5/32" BRIV® Al. Alloy, Brass, Steel	11	+.25	3.05	07150-07215	3.78	-	-	-	-	07170-06875
3/16" BRIV® Al. Alloy, Brass, Steel	13	+.25	3.84	07150-07216	4.32	+.30	3.85	07150-07316	4.39	07170-06876
6mm BRIV® Al. Alloy, Steel	15	+.25	4.79	07150-07218	4.49	-	-	-	-	07150-07846

Avlug®, Avsert®, Avtronic® & Rivscrew® - Imperial

For mandrel or mandrel follower spring selection, follow instructions on page 18.

FASTENER	LINE N°	HOLE SIZE	STANDARD MANDREL - GREEN			HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
3/32" AVLUG®	16	AS REC.	.076	07150-07603	.353	+.003	.079	07150-07703	.368	07150-06803
1/8" AVLUG®	17	AS REC.	.098	07150-07604	.593	-	-	-	-	07150-06804
2.5mm AVTRONIC®	18	AS REC.	.070	07170-07025	.140	+.003	.073	07170-07125	.140	07150-06803
2.8mm AVTRONIC®	19	AS REC.	.070	07170-07028	.150	+.003	.082	07170-07128	.150	07170-06528
	20	AS REC.	.079	07170-07028	.150	+.003	.082	07170-07128	.150	07170-06528
2.8mm RIVSCREW®	21	AS REC.	* .065	07271-07030	.127	-	-	-	-	07271-06630
3.0mm RIVSCREW®	22	AS REC.	* .065	07271-07030	.127	-	-	-	-	07271-06630
3.5mm RIVSCREW®	23	AS REC.	* .0825	07271-07035	.132	-	-	-	-	07271-06635
4.0mm RIVSCREW®	24	AS REC.	* .103	07271-07140	.150	-	-	-	-	07271-06640

* These Dimensions are Across Flats

FASTENER	LINE N°	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE			HOLE SIZE	3RD OVERSIZE MANDREL - RED			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
2.5mm AVTRONIC®	18	+.006	.076	07170-07225	.140	-	-	-	-	07150-06803
2.8mm AVTRONIC®	19	+.006	.085	07170-07728	.150	-	-	-	-	07170-06528
	20	+.006	.085	07170-07228	.150	-	-	-	-	07170-06528

Avlug®, Avsert®, Avtronic® & Rivscrew® - Metric

FASTENER	LINE N°	HOLE SIZE	STANDARD MANDREL - GREEN			HOLE SIZE	1ST OVERSIZE MANDREL - YELLOW			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
3/32" AVLUG®	16	AS REC.	1.93	07150-07603	8.97	+.10	2.01	07150-07703	9.35	07150-06803
1/8" AVLUG®	17	AS REC.	2.49	07150-07604	15.06	-	-	-	-	07150-06804
2.5mm AVTRONIC®	18	AS REC.	1.78	07170-07025	3.56	+.07	1.85	07170-07125	3.56	07150-06803
2.8mm AVTRONIC®	19	AS REC.	2.01	07170-07028	3.81	+.07	2.08	07170-07128	3.81	07170-06528
	20	AS REC.	2.01	07170-07028	3.81	+.07	2.08	07170-07128	3.81	07170-06528
2.8mm RIVSCREW®	21	AS REC.	*1.65	07271-07030	3.23	-	-	-	-	07271-06630
3.0mm RIVSCREW®	22	AS REC.	*1.65	07271-07030	3.23	-	-	-	-	07271-06630
3.5mm RIVSCREW®	23	AS REC.	*2.10	07271-07035	3.35	-	-	-	-	07271-06635
4.0mm RIVSCREW®	24	AS REC.	*2.62	07271-07140	3.81	-	-	-	-	07271-06640

* These Dimensions are Across Flats

FASTENER	LINE N°	HOLE SIZE	2ND OVERSIZE MANDREL - BLUE			HOLE SIZE	3RD OVERSIZE MANDREL - RED			SPRING PART N°
			HEAD Ø	MANDREL PART N°	P MAX.		HEAD Ø	MANDREL PART N°	P MAX.	
2.5mm AVTRONIC®	18	+.15	1.93	07170-07225	3.56	-	-	-	-	07150-06803
2.8mm AVTRONIC®	19	+.15	2.16	07170-07228	3.81	-	-	-	-	07170-06528
	20	+.15	2.16	07170-07228	3.81	-	-	-	-	07170-06528