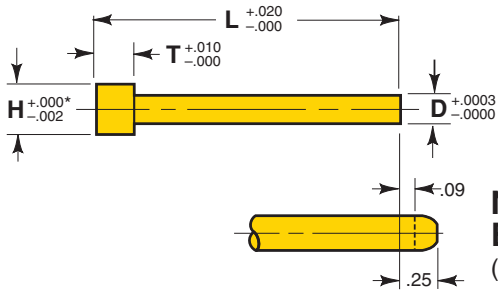


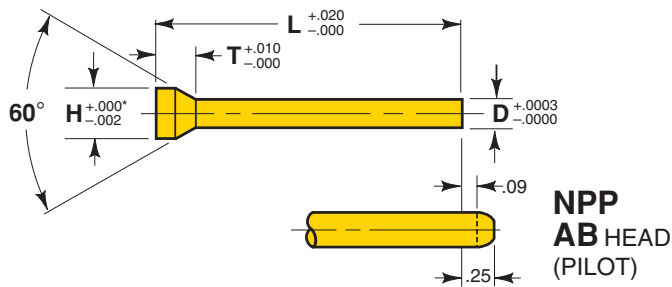
# PORTER HP & NPP Type Perforators

.001 increment shank diameters ZeroTemp (Deep Cryogenic) Treated

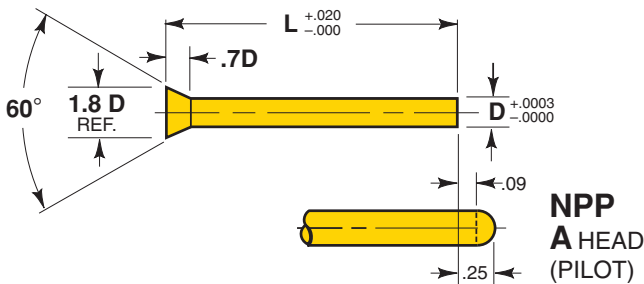
## HP PIN B HEAD



## HP PIN AB HEAD



## HP PIN A HEAD



### Ordering Example:

Qty.	Style	Size	L	D	Head Style
12	HP	10	x 2.50	x .175	AB
12	NPP	10	x 2.50	x .175	AB

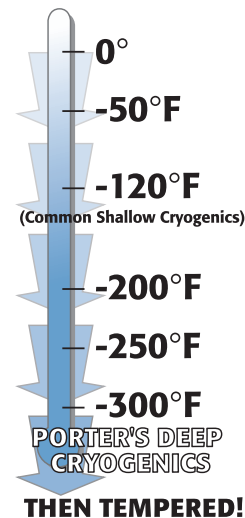
**M2 Rc 60-63  
Heads Drawn Rc 40-55  
ZeroTemp Treated**

\* H Diameter  $\pm_{.010}^{.000}$  Sizes # 26 thru # 37

- All perfs are head drawn for additional toughness.
- Pilot tip is not included in the "L" length of "NPP" & "NAP" pilots.
- Perforators (up to # 24) are ZeroTemp treated (See page 42) giving you the toughest M2 steel perforator for your money.
- Porter angle style heads (A & AB) can greatly reduce head popping due to elimination of relatively sharp corners present in 90° angle heads.
- Vertical lapped perforators are available; call out "VL" in description.
- Nitrogenic Treatment and Titanium Nitride coatings are available for increased wear resistance, see page 42.

\*\* 40° angled tip pilot also available, call out "NAP"

Catalog Code	Size No.	L in .25" Increments	D .001 Increments	T	H
HP Straight Pin	1/0	1.25 – 1.50	.025 – .0290	.093	.060
	1	1.25 – 2.00	.030 – .0400	.093	.070
	2	1.50 – 2.50	.041 – .0550	.093	.085
	3	1.50 – 2.50	.056 – .0700	.093	.100
	4	1.50 – 2.50	.071 – .0850	.093	.115
	5	1.50 – 2.75	.086 – .1000	.093	.130
	6	1.50 – 2.75	.101 – .1150	.093	.145
	7	1.50 – 2.75	.116 – .1300	.093	.160
NPP Radius Pilot Tip	8	1.50 – 2.75	.131 – .1450	.093	.175
	9	1.50 – 2.75	.146 – .1600	.093	.190
	10	1.50 – 3.00	.161 – .1750	.125	.205
	11	1.50 – 3.00	.176 – .1900	.125	.220
	12	1.50 – 3.00	.191 – .2050	.125	.235
	13	1.50 – 3.00	.206 – .2200	.125	.250
	14	1.50 – 3.00	.221 – .2350	.125	.265
	15	1.50 – 3.00	.236 – .2500	.125	.280
NAP Angled Pilot Tip **	16	1.75 – 3.50	.251 – .2650	.125	.295
	17	1.75 – 3.50	.266 – .2800	.125	.310
	18	1.75 – 3.50	.281 – .2950	.125	.325
	19	1.75 – 3.50	.296 – .3100	.125	.340
	20	1.75 – 3.50	.311 – .3250	.187	.355
	21	2.00 – 4.00	.326 – .3400	.187	.370
	22	2.00 – 4.00	.341 – .3550	.187	.385
	23	2.00 – 4.00	.356 – .3700	.187	.400
	24	2.00 – 4.00	.371 – .3850	.187	.415
	<b>Size #26 and larger "B" style head*</b>				
	26	2.25 – 4.00	.376 – .4375	.187	.563
	27	2.25 – 4.00	.438 – .5000	.187	.625
	28	2.25 – 4.00	.501 – .5620	.187	.687
	29	2.25 – 4.00	.563 – .6250	.187	.750
	30	2.25 – 4.50	.626 – .7190	.250	.844
	31	2.25 – 4.50	.720 – .8120	.250	.937
	32	2.25 – 5.00	.813 – .9060	.250	1.031
	33	2.25 – 5.00	.907 – 1.0000	.250	1.125
	34	2.25 – 5.50	1.001 – 1.1250	.250	1.250
	35	2.25 – 5.50	1.126 – 1.2500	.250	1.375
	36	2.25 – 5.50	1.251 – 1.4380	.250	1.563
	37	2.25 – 5.50	1.439 – 1.6250	.250	1.750



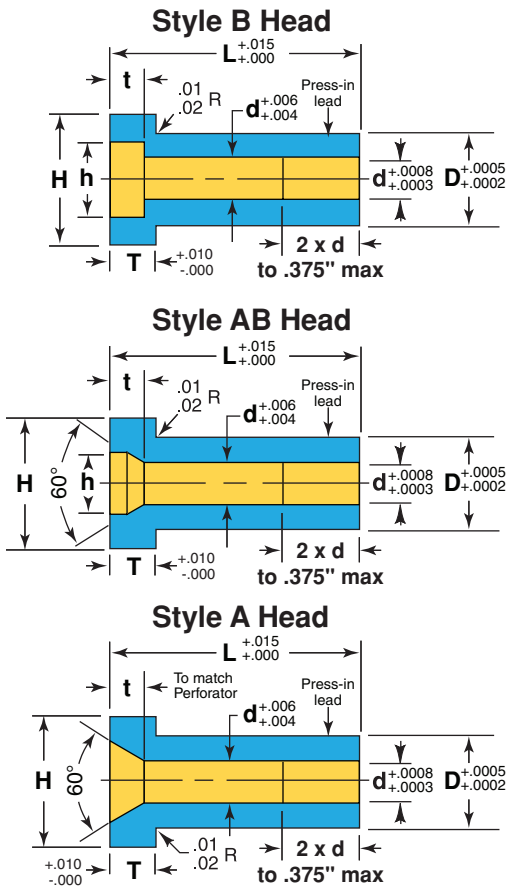
All Porter Perforators up to #24 are "Deep Cryogenically" treated for

1. Wear
2. Toughness
3. Dimensional Stability

See page 42 for more details.

# PORTER CQ Perforator Holders

**TOLERANCE**  
Steel: D2, Rc 59-62

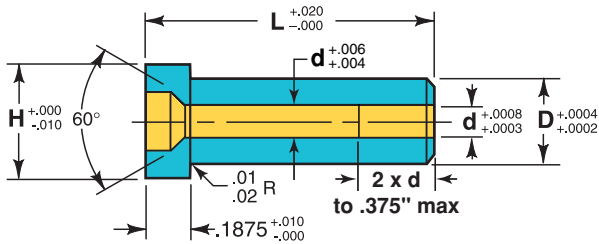


Catalog No.	D	Lengths L in .25" Increments	d .001 increments	h	t	H	T
CQ-30	.1875	.75 - 1.25	.040 - .060	Punch head diameter +.015	.094	.250	.187
CQ-31	.2500	.75 - 1.50	.060 - .126		.094	.375	.187
CQ-32	.3125	.75 - 2.00	.080 - .160		.094	.437	.187
CQ-33	.3750	1.00 - 2.25	.161 - .218		.125	.500	.187
CQ-34	.4375	1.00 - 2.25	.200 - .250		.125	.562	.187
CQ-35	.5000	1.00 - 2.25	.218 - .310		.125	.625	.187
CQ-35	.5000	1.00 - 2.25	.311 - .325		.187	.625	.187
CQ-36	.6250	1.00 - 2.25	.326 - .385		.187	.750	.187
CQ-37	.8750	1.75 - 2.50	.376 - .500		.187	1.125	.187
CQ-38	1.125	2.00 - 2.50	.501 - .625		.187	1.375	.187
CQ-39	1.3750	2.50 - 3.00	.626 - .812		.250	1.625	.187
CQ-40	1.7500	2.75 - 3.25	.813 - 1.000		.250	2.000	.187
CQ-41	2.2500	3.00 - 3.50	1.001 - 1.250		.250	2.500	.187
CQ-42	2.8750	3.00 - 3.50	1.251 - 1.625		.250	3.250	.187

**Ordering Example:**  
Qty. Cat. No. L d Head Style  
6 CQ32 x 1.50 x .100 AB

# PORTER Support Quill Series

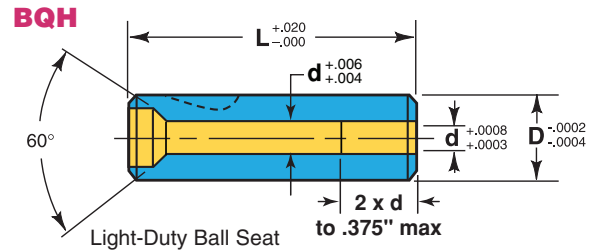
## Standard Support Quill SSQ Series



**Ordering Example:**  
Qty. Cat. No. x L Head Style  
6 SSQ53 x 1.50 AB

**TOLERANCE**  
Steel: A2, RC59-62  
d to D TIR: .0003 Max. Perf.

Catalog Number	D	Length L in .25" Increment	Perf d	H	To Match AB Perf #
SSQ-50	.1875	.75 - 1.25	.062	.250	NO-LN0
SSQ-51	.2500	.75 - 1.50	.078	.375	N1-LN1
SSQ-52	.2500	1.00 - 1.75	.093	.375	N2-LN2
SSQ-53	.3125	1.00 - 1.75	.125	.437	N3-LN3
SSQ-54	.3125	1.00 - 1.75	.156	.437	N4-LN4
SSQ-55	.3750	1.00 - 1.75	.187	.500	N5-LN5
SSQ-56	.3750	1.25 - 1.75	.218	.500	N6-LN6
SSQ-57	.4375	1.25 - 1.75	.250	.562	N7-LN7
SSQ-58	.5000	1.25 - 1.75	.312	.625	N8-LN8
SSQ-59	.6250	1.25 - 1.75	.375	.750	N9-LN9
SSQ-60	.8750	1.25 - 1.75	.438	1.125	N10-LN10
SSQ-61	.8750	1.25 - 1.75	.500	1.125	N11-LN11



**Ordering Example:**  
Qty. Cat. No. x L Head Style  
6 BQH53 x 1.75 AB

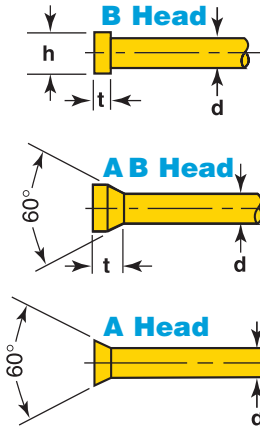
Catalog Number	Holder ØD	Length L	Perf d	To Match AB Perf #
BQH-50	.3750	1.25 1.75	.062	NO-LN0
BQH-51	.3750	1.25 1.75	.078	N1-LN1
BQH-52	.3750	1.25 1.75	.093	N2-LN2
BQH-53	.3750	1.25 1.75	.125	N3-LN3
BQH-54	.5000	1.25 1.75	.156	N4-LN4
BQH-55	.5000	1.25 2.00	.187	N5-LN5
BQH-56	.5000	1.25 2.00	.218	N6-LN6
BQH-57	.6250	1.25 2.00	.250	N7-LN7
BQH-58	.8750	1.25 2.00	.312	N8-LN8
BQH-59	.8750	1.25 2.00	.375	N9-LN9

Designed

- to hold N and LN type perforators, will also fit HP type.
- with thicker wall at tear-drop washout for extra strength.
- to fit all standard light duty retainers.

# PORTER Perforators and Support Sleeves

## N & LN Series

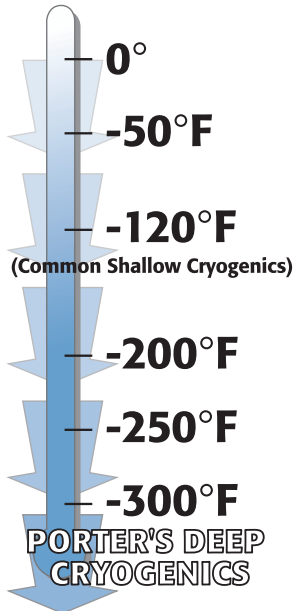


All Nib Perforators are M-2 Steel RC 60-63  
Heads Drawn RC 40-55  
Zero-Temp (Deep-Cryogenic)  
Available with Nitrogenic Treatment for added wear resistance.  
T.I.R. Point to body .0003  
\* Shorter Lengths are available, please ask for quote.

### Ordering Example:

Qty. Cat. No. x L x ØP Head Style  
12 N5 x 2.0 x .145 AB  
16 LN5 x 2.5 x .145 AB

Catalog No.	N L <sub>2</sub>	d	h	t	L in .25" increments	P <sup>+0.003</sup> / <sub>+0.000</sub>	LN L <sub>2</sub>	Catalog Number
N-0	.125	.062	.100	.093	1.50 to 2.50	.031 - .044 .045 - .061	.250 .312	LN-0
N-1	.156	.078	.115	.093	1.50 to 2.50	.045 - .061 .062 - .077	.312 .437	LN-1
N-2	.187	.093	.130	.093	1.50 to 2.75	.060 - .074 .075 - .092	.437 .500	LN-2
N-3	.250	.125	.160	.093	1.50 to 2.75	.075 - .124	.562	LN-3
N-4	.312	.156	.190	.093	1.50 to 2.75	.093 - .155	.750	LN-4
N-5	.437	.187	.220	.125	1.75 to 3.00	.109 - .186	.875	LN-5
N-6	.468	.218	.250	.125	1.75 to 3.00	.125 - .217	1.000	LN-6
N-7	.500	.250	.280	.125	2.00 to 3.00	.150 - .249	1.125	LN-7
N-8	.562	.312	.355	.187	2.00 to 3.50	.187 - .311	1.187	LN-8
N-9	.687	.375	.415	.187	2.00 to 4.00	.255 - .374	1.312	LN-9
N-10	.687	.438	.563	.187	2.50 to 4.00	.262 - .437	1.312	LN-10
N-11	.687	.500	.625	.187	2.50 to 4.00	.300 - .499	1.312	LN-11
N-12	.687	.562	.687	.187	2.50 to 4.00	.337 - .561	1.312	LN-12
N-13	.687	.625	.750	.187	2.50 to 4.00	.375 - .624	1.312	LN-13
N-14	.750	.719	.814	.250	2.50 to 4.50	.415 - .718	1.437	LN-14
N-15	.750	.812	.937	.250	2.50 to 4.50	.487 - .811	1.437	LN-15
N-16	.812	.906	1.031	.250	2.50 to 5.00	.544 - .905	1.562	LN-16
N-17	.812	1.000	1.125	.250	2.50 to 5.00	.600 - .999	1.562	LN-17
N-18	.875	1.125	1.250	.250	2.50 to 5.50	.675 - 1.124	1.687	LN-18
N-19	.875	1.250	1.375	.250	2.50 to 5.50	.750 - 1.249	1.687	LN-19
N-20	.937	1.438	1.563	.250	2.75 to 6.00	.863 - 1.437	1.812	LN-20
N-21	.937	1.625	1.750	.250	2.75 to 6.00	.975 - 1.624	1.812	LN-21



## THEN TEMPERED!

All Porter Perforators are "Deep Cryogenically" treated for  
1. Wear  
2. Toughness  
3. Dimensional Stability  
See page 42 for more details.

## CSS Punch Support Sleeve and CSP Perforators

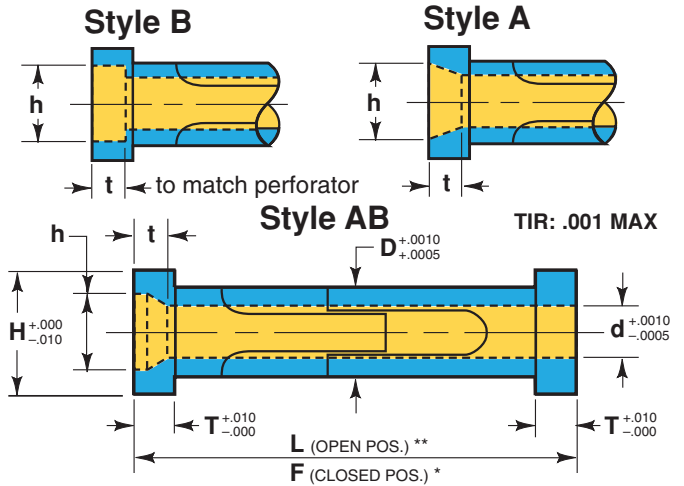
**Material:**  
Sleeve - stress proof material  
Perforator - M2 Rc 60-63 heads drawn ZeroTemp (Deep Cryogenic) treated

### When Ordering Sleeve Specify:

Qty. Cat. No. x d Style  
6 CSS2 x .110 AB

### When Ordering Perforator Specify:

Qty. Cat. No. x d Style  
18 CSP2 x .110 AB

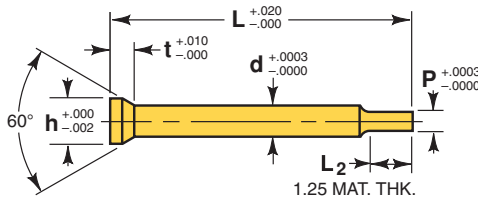


Catalog No.		d .001 increment	h	t	D	H	T	L**	F*	K***
CSS-3/0	CSP-3/0	.025 - .029	Punch head diameter +.015	.094	.1562	.218	.094	1.187	1.06	.12
CSS-2/0	CSP-2/0	.030 - .034		.094	.1875	.250	.094	1.312	1.18	.12
CSS-1/0	CSP-1/0	.035 - .039		.094	.1875	.250	.094	1.312	1.18	.12
CSS-0	CSP-0	.040 - .062		.094	.1875	.250	.094	1.500	1.31	.18
CSS-1	CSP-1	.063 - .093		.094	.2500	.375	.125	2.000	1.75	.25
CSS-2	CSP-2	.094 - .160		.094	.3125	.437	.125	2.125	1.75	.37
CSS-3	CSP-3	.161 - .218		.125	.3750	.500	.125	2.125	1.75	.37
CSS-4	CSP-4	.189 - .250		.125	.4375	.562	.125	2.500	2.00	.50
CSS-5	CSP-5	.251 - .310		.125	.5000	.625	.187	2.750	2.25	.50
		.311 - .325		.187	.187	.6250	.750	.187	3.125	2.37
CSS-6	CSP-6	.326 - .385		.187	.6250	.750	.187	3.125	2.37	.75

\*Minimum closed length \*\*Also length of perforator \*\*\*Length of stroke

# PORTER P-200 Perforators and PSS-200 Support Sleeves

## P-200 Perforator Style AB



Hardness RC 60-63 Zero-Temp® Treatment  
Heads RC 40-55

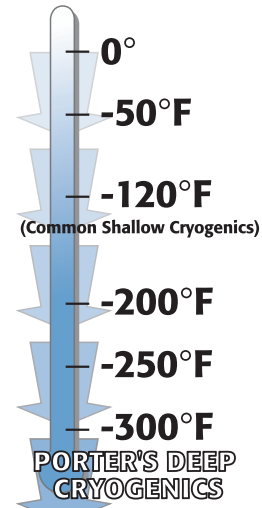
When Ordering Perforator Specify:

Qty. Cat. No. x P L2  
6 P202 x .075 .25

Call out SBR required or advise Material Thickness.

P to d TIR: .0003 Max.

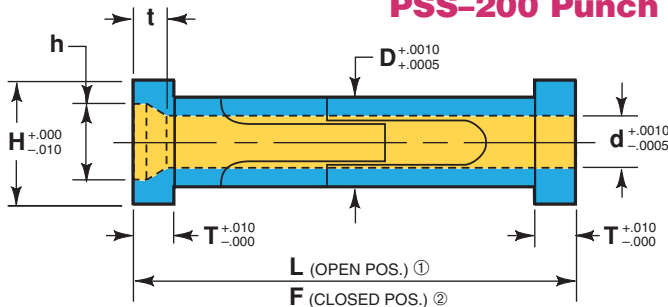
Cat. No.	d	L	P	h	t
P-200	.062	1.50	.043-.061	.100	.093
P-201	.078	2.00	.054-.077	.115	.093
P-202	.093	2.00	.062-.092	.130	.093
P-203	.125	2.12	.087-.124	.160	.093
P-204	.156	2.12	.109-.155	.190	.093
P-205	.187	2.12	.125-.186	.220	.125
P-206	.218	2.12	.153-.217	.250	.125
P-207	.250	2.50	.175-.249	.280	.125
P-208	.312	2.75	.218-.311	.355	.187
P-209	.375	3.12	.265-.374	.415	.187
P-210	.438	3.56	.307-.437	.563	.187
P-211	.500	3.56	.350-.499	.625	.187



All Porter Perforators are "Deep Cryogenically" treated for  
1. Wear  
2. Toughness  
3. Dimensional Stability  
See page 42 for more details.

THEN TEMPERED!

## PSS-200 Punch Support Sleeve



Designed to hold P-200 Style Perforators.

- ① L = Perforator length also
- ② F = Minimum closed position
- ③ K = Length of stroke

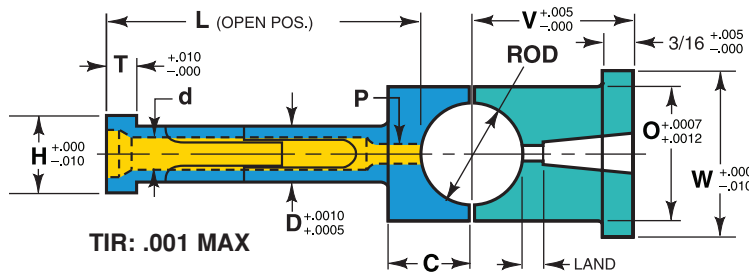
When Ordering Sleeve Specify:

Qty. Cat. No.  
3 PSS202

Sleeve = Stress Proof Material TIR: .001 Max.

Cat. No.	D	L①	F②	K③	H	T	d
PSS-200	.1875	1.50	1.31	.19	.250	.093	.062
PSS-201	.2500	2.00	1.75	.25	.375	.125	.078
PSS-202	.2500	2.00	1.75	.25	.375	.125	.093
PSS-203	.3125	2.12	1.75	.37	.437	.125	.125
PSS-204	.3125	2.12	1.75	.37	.437	.125	.156
PSS-205	.3750	2.12	1.75	.37	.500	.125	.187
PSS-206	.3750	2.12	1.75	.37	.500	.125	.218
PSS-207	.4375	2.50	2.00	.50	.562	.125	.250
PSS-208	.5000	2.75	2.25	.50	.625	.187	.312
PSS-209	.6250	3.12	2.37	.75	.750	.187	.375
PSS-210	.8750	3.56	2.81	.75	1.125	.250	.438
PSS-211	.8750	3.56	2.81	.75	1.125	.250	.500

# PORTER Series 90 Rod Piercing Support Sleeves, Perforators & Die Buttons



TIR: .001 MAX

When Ordering Sleeve Specify:

Qty. Cat. No. Style Head  
6 RSS90 AB

When Ordering Perforator Specify:

Qty. Cat. No. x P x R Style Head  
6 RSP90 x .051 x .0625 AB

When Ordering Die Button Specify:

Qty. Cat. No. V P  
6 RSD90 .875 .063

Catalog Number	P	d	D	H	T	O	C	L	K	ROD Ø	V	W
RSS-90	.043-.056	.062	.1875	.250	.093	.2500	T + Radius of Rod	1.500	.187	To be specified by customer.	Die Button Length	O + .125
RSS-91	.054-.070	.078	.2500	.375	.125	.3750		2.000	.250			
RSS-92	.062-.083	.093	.2500	.375	.125	.3750		2.000	.250			
RSS-93	.081-.113	.125	.3125	.437	.125	.4375		2.125	.375			
RSS-94	.109-.140	.156	.3125	.437	.125	.5625		2.125	.375			
RSS-95	.125-.168	.187	.3750	.500	.125	.6875		2.187	.437			
RSS-96	.153-.196	.218	.3750	.500	.125	.8125		2.187	.437			
RSS-97	.175-.225	.250	.4375	.562	.125	.9375		2.500	.500			
RSS-98	.218-.281	.312	.5000	.625	.187	1.1250		2.875	.625			
RSS-99	.265-.343	.375	.6250	.750	.187	1.3750		3.125	.750			

RSS Sleeve Set consist of the two piece intermeshing sleeve. RSP (Perforator) and RSD (Die Button) must be ordered separately when needed.

- ① L= Perforator Length also
- ③ K= Length of stroke