

SPOOL RETAINERS

—THICK TYPE / LARGE FLANGE TYPE—

Thick type CSRH

Large flange type CSRTA

L	ℓ
L ≤ 100	L ± 0.03
L ≥ 110	L ± 0.05

① Hexagon socket head cap screw (CB)
M SCM435
 Strength class 12.9 (M10~20)
 10.9 (M24)
 ② **M** S45C
H 25~30HRC
S Black oxide (Fe₃O₄)

D _{e9}	d ₁	d ₂	d ₃	M×P	R	h	T	ℓ	Catalog No.		L	Base unit price 1~9 pieces
									Type	D		
18	-0.032 -0.075	16	27	10.7	10×1.5	1.0	10	8	22	Thick type CSRH	60 70 80 90 100 110 120 130 140 150	
											18	
											22	
											30	
22	-0.040 -0.092	18	33	12.7	12×1.75	1.0	12	10	20	Thick type CSRH	60 70 80 90 100 110 120 130 140 150	
											22	
											30	
											36	
30	-0.050 -0.112	24	44	16.7	16×2.0	1.5	16	13	27	Thick type CSRH	60 70 80 90 100 110 120 130 140 150 160 170 180	Quotation
											36	
											44	
											44	

D _{e9}	d ₁	d ₂	d ₃	M×P	R	h	T	ℓ	Catalog No.		L	Base unit price 1~9 pieces
									Type	D		
22	-0.040 -0.092	18	50	12.7	12×1.75	1.0	12	10	20	Large flange type CSRTA	80 90 100 110 120 130	Quotation
											30	
											36	
											44	
30	-0.050 -0.112	24	60	16.7	16×2.0	1.5	16	13	27	Large flange type CSRTA	80 90 100 110 120 130 140 150	Quotation
											36	
											44	
											44	

Order Catalog No. — L
 CSRH 30 — 150
 CSRTA 36 — 100

Days to Ship Quotation

Price Quotation

Alterations Catalog No. — L(LC)
 CSRH 30 — LC175.5

Alteration	Code	Spec.	1Code	
	LC	Retainer L dimension change Lmin. ≤ LC < Lmax. 0.1mm increments Install the bolts so that the ℓ dimension is within the range shown at right.	Quotation	
		D		ℓ
		18		22~31.9
		22		20~29.9
		30		27~36.9
36	34~43.9			
44	42~51.9			

Example Page at right

SPOOL RETAINERS / BLANK HOLDER STOPPER BOLTS

—COUNTERBORE TYPE—

Spool retainers CSRZ

Counterbore type CSRZ

L	ℓ
L ≤ 100	L ± 0.03
L ≥ 110	L ± 0.05

① Hexagon socket head cap screw (CB)
M SCM435
 Strength class 12.9 (M10~20)
 10.9 (M24)
 ② **M** S45C
H 25~30HRC
S Black oxide (Fe₃O₄)

Blank holder stopper bolts CBH

CBH

① **M** SCM435
 Strength class 12.9
 ②③ **M** S45C
S Black oxide (Fe₃O₄)

D _{e9}	d ₁	d ₂	d ₃	M×P	Provided bolt	T	S	ℓ	Catalog No.		L	Base unit price 1~9 pieces
									Type	D		
20	-0.040 -0.092	15	26	9	8×1.25	CB 8-35	6	20	15	Counterbore type CSRZ	40 50 60 70 80 90	Quotation
											24	
											28	
											35	
24	-0.050 -0.112	18	33	11	10×1.5	CB10-45	6	25	20	Counterbore type CSRZ	50 60 70 80 90 100	Quotation
											28	
											35	
											44	

D	d ₁	d ₂	d ₃	h	T	M×P	ℓ	Catalog No.		L	Base unit price 1~9 pieces
								Type	No.		
25.4	24	36	17.4	16	13	16×2.0	27	CBH	25	100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 280 300	Quotation
										32	
31.8	30	45	21.8	20	16	20×2.5	34	CBH	32	110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 280 300	Quotation
										32	

Order Catalog No. — L
 CSRZ 35 — 100
 CBH 25 — 180

Alterations Catalog No. — L(LC)
 CSRZ 35 — LC114.0
 CBH 25 — LC175.0

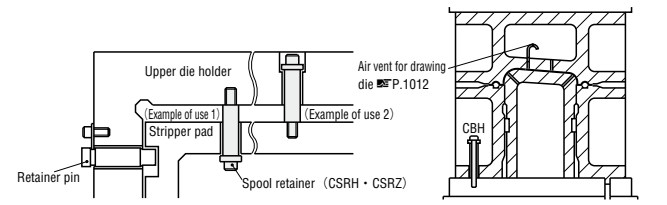
Quotation

Days to Ship Quotation

Price Quotation

Example Example showing combined use of retainer pin and spool retainer

Alteration	Code	Spec.	1Code	
	LC	Retainer L dimension change for spool retainer Lmin. — 10 ≤ LC < Lmax. 0.1mm increments Bolt size remains the same. S dimension is shortened by (L-LC).	Quotation	
		Retainer L dimension change for blank holder stopper 60 ≤ LC < 300 0.1mm increments Install the bolts so that the ℓ dimension is within the range shown at right.		
		No.		ℓ
		25		27~36.9
		32		34~43.9



COMPONENTS FOR AUTOMOTIVE DIES