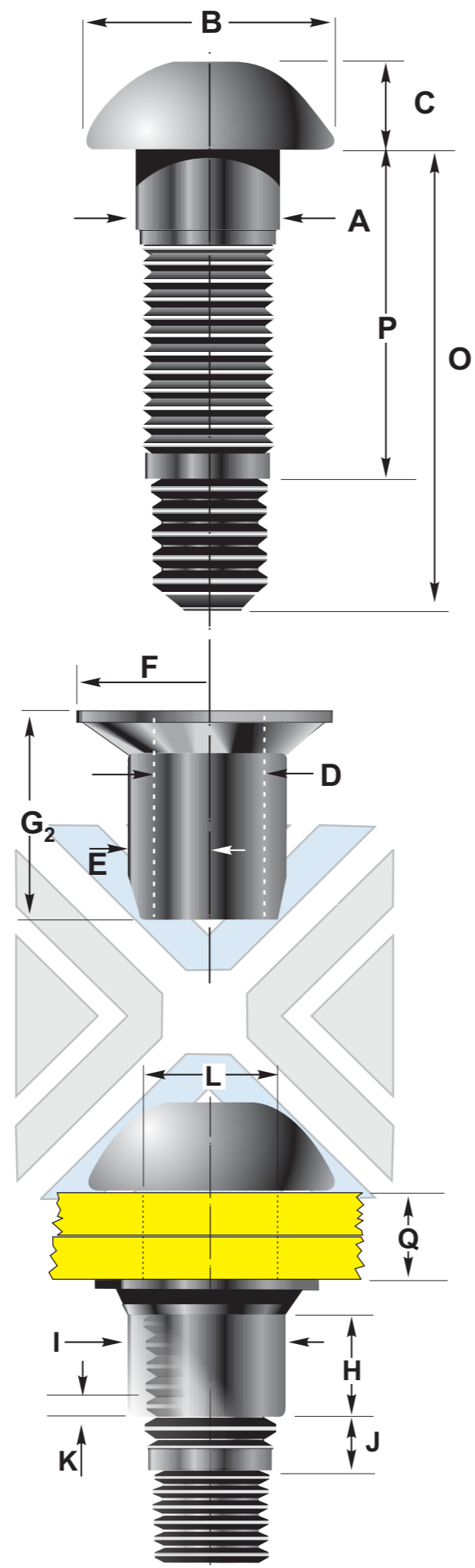


PIN DIMENSIONS		GRIP NUMBER	GRIP RANGE	PIN LENGTH (O)	BREAK LENGTH (P)
SHANK DIAMETER	A	12.52 - 12.95	10	5 - 15	53
HEAD DIAMETER	B	22.8 - 24.5	15	10 - 20	58
HEAD HEIGHT	C	7.7 - 9.2	20	15 - 25	63
			25	20 - 30	68
COLLAR DIMENSIONS			30	25 - 35	73
BORE DIAMETER	D	13.2 - 13.4	35	30 - 40	78
OUTSIDE DIAMETER	E	20.1 - 20.4	40	35 - 45	83
			45	40 - 50	88
FLANGE DIAMETER	F	25.15-26.15			
HEIGHT	G	18.7-19.2			
INSTALLED DATA					
SWAGE LENGTH	H	9.74 MIN			
SWAGE DIAMETER	I	18.4 MAX			
PIN PROTRUSION	J	9.0 MAX			
PIN INTRUSION	K				
HOLE SIZE	L	14.2 MAX			
MECHANICAL PROPERTIES					
SHEAR STRENGTH		65 KN MIN			
CLAMP LOAD		54 KN MIN			
TENSILE STRENGTH		76 KN MIN			

**HS 13  
Fastener**

PIN DIMENSIONS		GRIP NUMBER	GRIP RANGE	PIN LENGTH (O)	BREAK LENGTH (P)
SHANK DIAMETER	A	15.65-16.19	10	5 - 15	61
HEAD DIAMETER	B	28.5 - 30	15	10 - 20	66
HEAD HEIGHT	C	9.5 - 11.3	20	15 - 25	71
			25	20 - 30	76
COLLAR DIMENSIONS			30	25 - 35	81
BORE DIAMETER	D	16.55 - 16.75	35	30 - 40	86
OUTSIDE DIAMETER	E	24.85 - 25.15	40	35 - 45	91
			45	40 - 50	96
FLANGE DIAMETER	F	31.3 - 32.3	50	45 - 55	101
			55	50 - 60	106
HEIGHT	G	23.75 - 24.25	60	55 - 65	111
INSTALLED DATA					
SWAGE LENGTH	H	15.69 MIN			
SWAGE DIAMETER	I	23.0 MAX			
PIN PROTRUSION	J				
PIN INTRUSION	K	1.5 MAX			
HOLE SIZE	L	17.5 MAX			
MECHANICAL PROPERTIES					
SHEAR STRENGTH		101 KN MIN			
CLAMP LOAD		86 KN MIN			
TENSILE STRENGTH		121 KN MIN			

**HS 16  
Fastener**



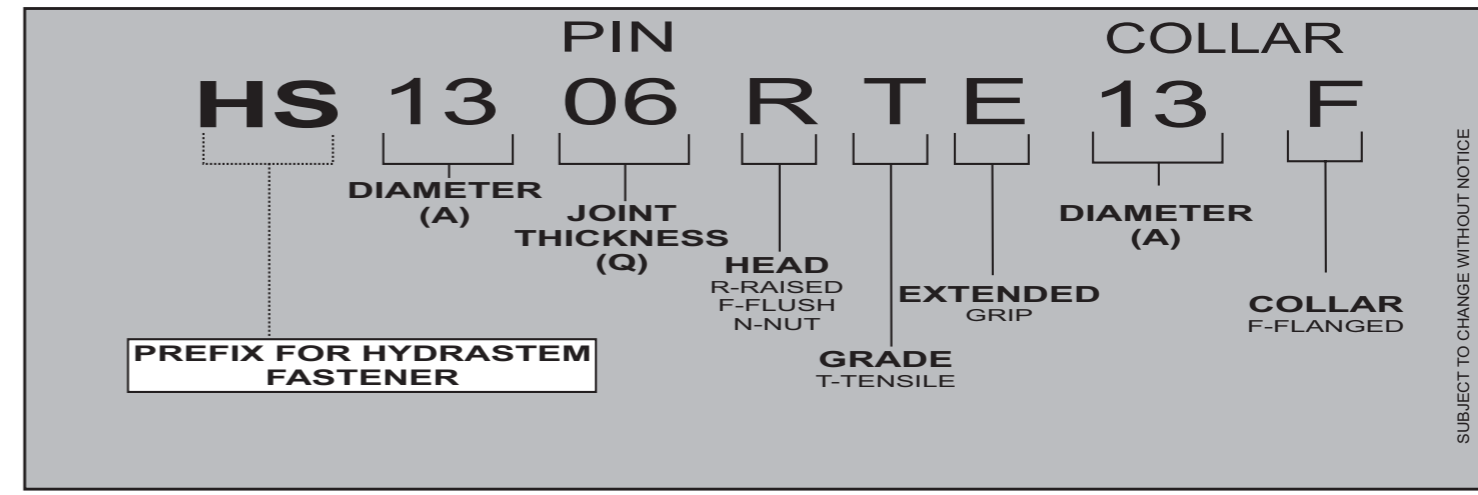
PIN DIMENSIONS		GRIP No.	GRIP RANGE	PIN LENGTH (O)	BREAK LENGTH (P)
SHANK DIAMETER	A	18.8 - 19.43	15	10 - 20	73
HEAD DIAMETER	B	33.5 - 35	20	15 - 25	78
HEAD HEIGHT	C	11.5 - 13.5	25	20 - 30	83
			30	25 - 35	88
COLLAR DIMENSIONS			35	30 - 40	93
BORE DIAMETER	D	19.80 - 20.0	40	35 - 45	98
			45	40 - 50	103
OUTSIDE DIAMETER	E	29.85 - 30.15	50	45 - 55	108
FLANGE DIAMETER	F	37.7 - 38.7	55	50 - 60	113
			60	55 - 65	118
HEIGHT	G	28.45 - 28.95			
INSTALLED DATA					
SWAGE LENGTH	H	16.95 MIN			
SWAGE DIAMETER	I	27.8 MAX			
PIN PROTRUSION	J				
PIN INTRUSION	K	1.5 MAX			
HOLE SIZE	L	20.5MAX			
MECHANICAL PROPERTIES					
SHEAR STRENGTH		145 KN MIN			
CLAMP LOAD		127 KN MIN			
TENSILE STRENGTH		179 KN MIN			

**HS 19  
Fastener**

**NOTES**

- \* 'T' DENOTES TENSILE STRENGTH = ASTM GRD 5 = 120000 PSI (828 mPa) MIN ULTIMATE TENSILE STRENGTH
- \* SHEAR STRENGTH IS APPROXIMATELY 80% OF ULTIMATE TENSILE
- \* STANDARD FINISHES ARE:
- \* PIN - SELF COLOUR, COLLAR - ELECTRO-ZINC

**HOW TO ORDER YOUR HYDRASTEM PINS AND COLLARS**



SUBJECT TO CHANGE WITHOUT NOTICE