



**FASTENERS**



## LOCK BOLT PINS & COLLARS

Heavy duty 2 piece fastening system

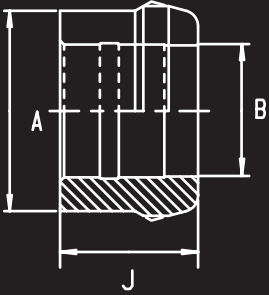
**Benefits include:**

Vibration resistant • Provides high shear and tensile strength • Tamper proof • Consistent controlled clamp up • No re-torquing necessary • Fast and easy installation • Replaces bolted and welded joints • Fully compatible with existing tooling

**Applications:**

Railway • Mining • Construction • Sugar mills • Heavy engineering

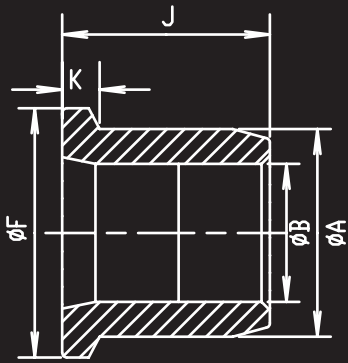
### Standard Collar Dimensions



	A	B	J
Max	20,30	13,70	16,40
Min	19,40	13,10	15,50

### Flange Collar Dimensions

\*Use of flanged collar reduces grip by 3mm

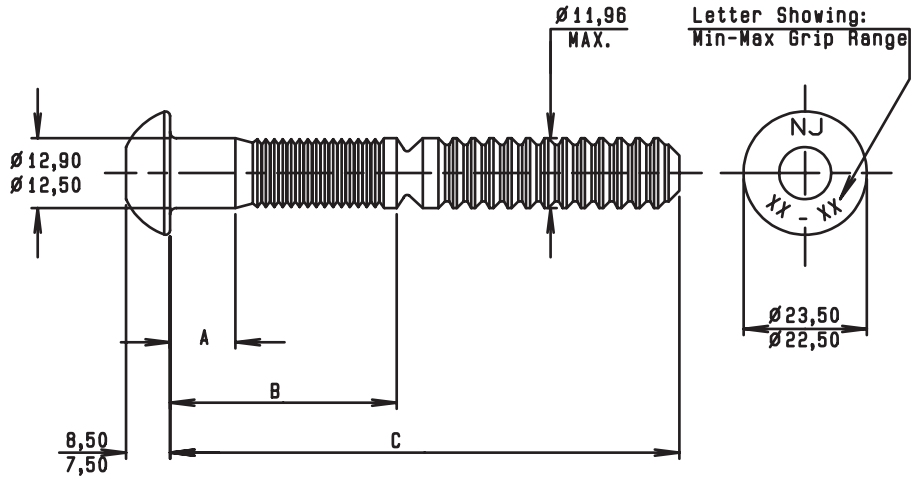


	A	B	J	F	K
Max	20,50	13,70	19,00	26,20	4,00
Min	20,15	13,10	18,20	24,60	2,40

### Round & Countersunk Mechanical Properties

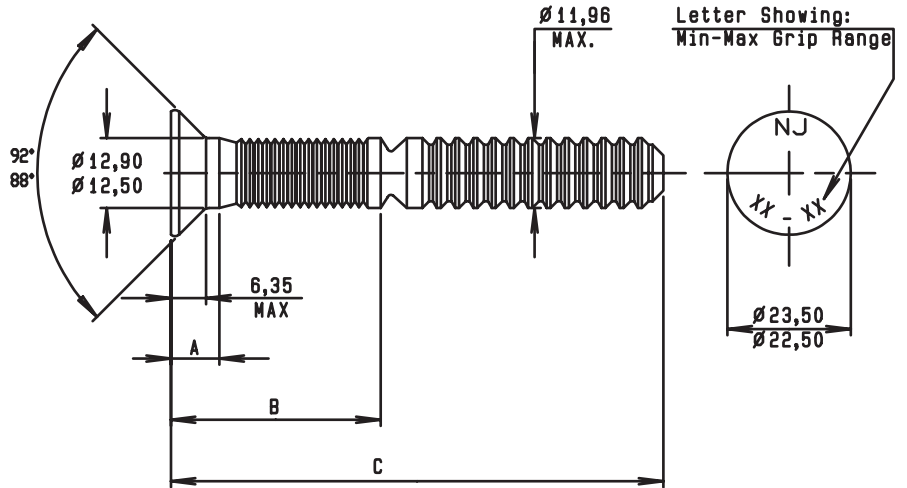
Min Ultimate Tensile:	75.9 (kN)
Clamping Load:	53.6 (kN)
Min Shear Strength:	64.2 (kN)
Max Hole Diameter:	14,20 (mm)
Max Pin Protrusion:	9,52 (mm)
Max Pin Intrusion:	1,58 (mm)

### 13mm Diameter Brazier Head



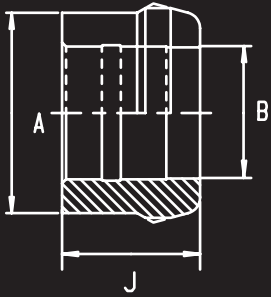
Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
13B06	3,97	5,16	30,03	31,22	80,83	83,21	6,35	12,70	NJ 06-13
13B13	10,32	11,51	36,38	37,57	87,18	89,56	12,70	19,05	NJ 13-19
13B19	16,67	17,86	42,73	43,92	93,53	95,91	19,05	25,40	NJ 19-25
13B25	23,02	24,21	49,08	50,27	99,88	102,26	25,40	31,75	NJ 25-32
13B32	29,37	30,56	55,43	56,62	106,23	108,61	31,75	38,10	NJ 32-38
13B38	35,72	36,91	61,78	62,97	112,58	114,96	38,10	44,45	NJ 38-44
13B44	42,07	43,26	68,13	69,32	118,93	121,31	44,45	50,80	NJ 44-51
13B51	48,42	49,61	74,48	75,67	125,28	127,66	50,80	57,15	NJ 51-57
13B57	54,77	55,96	80,83	82,02	131,63	134,01	57,15	63,50	NJ 57-63
13B63	61,12	62,31	87,18	88,37	137,98	140,36	63,50	69,85	NJ 63-70
13B70	67,47	68,66	93,53	94,72	144,33	146,71	69,85	76,20	NJ 70-76
13B76	73,82	75,01	99,88	101,07	150,68	153,06	76,20	82,55	NJ 76-83

### 13mm Diameter Countersunk Head



Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
13C13	10,32	11,51	36,38	37,57	87,18	89,56	12,70	19,05	NJ 13-19
13C19	16,67	17,86	42,73	43,92	93,53	95,91	19,05	25,40	NJ 19-25
13C25	23,02	24,21	49,08	50,27	99,88	102,26	25,40	31,75	NJ 25-32
13C32	29,37	30,56	55,43	56,62	106,23	108,61	31,75	38,10	NJ 32-38
13C38	35,72	36,91	61,78	62,97	112,58	114,96	38,10	44,45	NJ 38-44
13C44	42,07	43,26	68,13	69,32	118,93	121,31	44,45	50,80	NJ 44-51
13C51	48,42	49,61	74,48	75,67	125,28	127,66	50,80	57,15	NJ 51-57
13C57	54,77	55,96	80,83	82,02	131,63	134,01	57,15	63,50	NJ 57-63
13C63	61,12	62,31	87,18	88,37	137,98	140,36	63,50	69,85	NJ 63-70
13C70	67,47	68,66	93,53	94,72	144,33	146,71	69,85	76,20	NJ 70-76
13C76	73,82	75,01	99,88	101,07	150,68	153,06	76,20	82,55	NJ 76-83

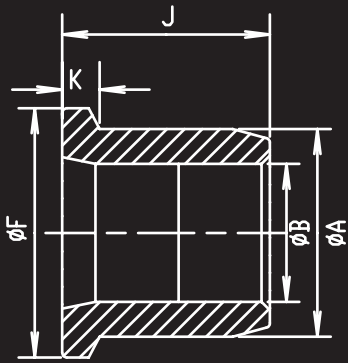
### Standard Collar Dimensions



	A	B	J
Max	25,70	16,90	22,20
Min	24,60	16,50	21,50

### Flange Collar Dimensions

\*Use of flanged collar reduces grip by 4mm

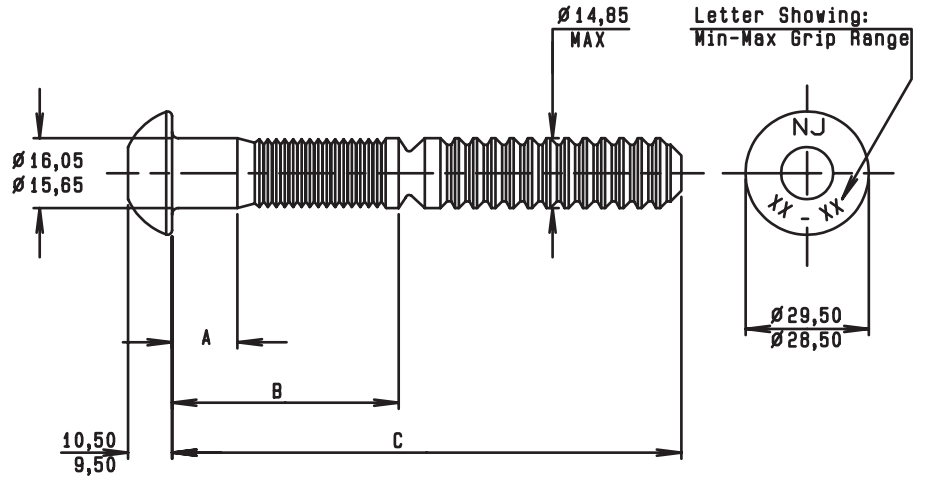


	A	B	J	F	K
Max	25,70	16,90	24,40	32,50	4,75
Min	24,65	16,50	23,60	31,00	3,20

### Round & Countersunk Mechanical Properties

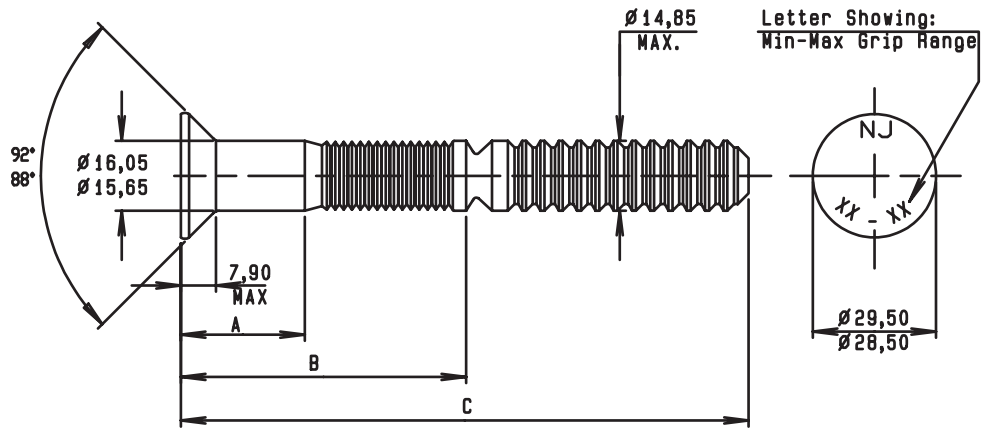
Min Ultimate Tensile:	120.6 (kN)
Clamping Load:	85.4 (kN)
Min Shear Strength:	100.1 (kN)
Max Hole Diameter:	17,50 (mm)
Max Pin Protrusion:	9,52 (mm)
Max Pin Intrusion:	1,58 (mm)

### 16mm Diameter Brazier Head



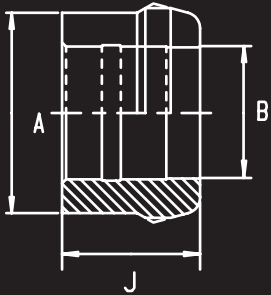
Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
16B06	3,53	4,94	35,16	36,57	92,31	95,13	6,35	12,70	NJ 06-13
16B13	9,88	11,29	41,51	42,92	98,66	101,48	12,70	19,05	NJ 13-19
16B19	16,23	17,64	47,86	49,27	105,01	107,83	19,05	25,40	NJ 19-25
16B25	22,58	23,99	54,21	55,62	111,36	114,18	25,40	31,75	NJ 25-32
16B32	28,93	30,34	60,56	61,97	117,71	120,53	31,75	38,10	NJ 32-38
16B38	35,28	36,69	66,91	68,32	124,06	126,88	38,10	44,45	NJ 38-44
16B44	41,63	43,04	73,26	74,67	130,41	133,23	44,45	50,80	NJ 44-51
16B51	47,98	49,39	79,61	81,02	136,76	139,58	50,80	57,15	NJ 51-57
16B57	54,33	55,74	85,96	87,37	143,11	145,93	57,15	63,50	NJ 57-63
16B63	60,68	62,09	92,31	93,72	149,46	152,28	63,50	69,85	NJ 63-70
16B70	67,03	68,44	98,66	100,07	155,81	158,63	69,85	76,20	NJ 70-76
16B76	73,38	74,79	105,01	106,42	162,16	164,98	76,20	82,55	NJ 76-83

### 16mm Diameter Countersunk Head



Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
16C13	9,88	11,29	41,51	42,92	98,66	101,48	12,70	19,05	NJ 13-19
16C19	16,23	17,64	47,86	49,27	105,01	107,83	19,05	25,40	NJ 19-25
16C25	22,58	23,99	54,21	55,62	111,36	114,18	25,40	31,75	NJ 25-32
16C32	28,93	30,34	60,56	61,97	117,71	120,53	31,75	38,10	NJ 32-38
16C38	35,28	36,69	66,91	68,32	124,06	126,88	38,10	44,45	NJ 38-44
16C44	41,63	43,04	73,26	74,67	130,41	133,23	44,45	50,80	NJ 44-51
16C51	47,98	49,39	79,61	81,02	136,76	139,58	50,80	57,15	NJ 51-57
16C57	54,33	55,74	85,96	87,37	143,11	145,93	57,15	63,50	NJ 57-63
16C63	60,68	62,09	92,31	93,72	149,46	152,28	63,50	69,85	NJ 63-70
16C70	67,03	68,44	98,66	100,07	155,81	158,63	69,85	76,20	NJ 70-76
16C76	73,38	74,79	105,01	106,42	162,16	164,98	76,20	82,55	NJ 76-83

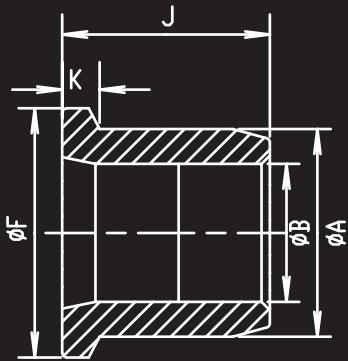
### Standard Collar Dimensions



	A	B	J
Max	30,00	20,10	24,40
Min	29,60	19,70	23,60

### Flange Collar Dimensions

\*Use of flanged collar reduces grip by 5mm

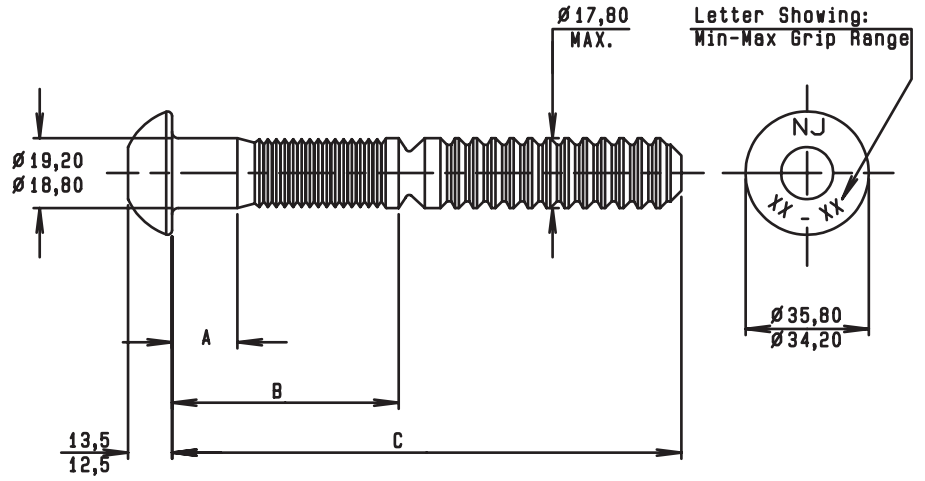


	A	B	J	F	K
Max	30,50	20,10	29,15	38,90	5,50
Min	29,70	19,70	28,40	37,30	4,00

### Round & Countersunk Mechanical Properties

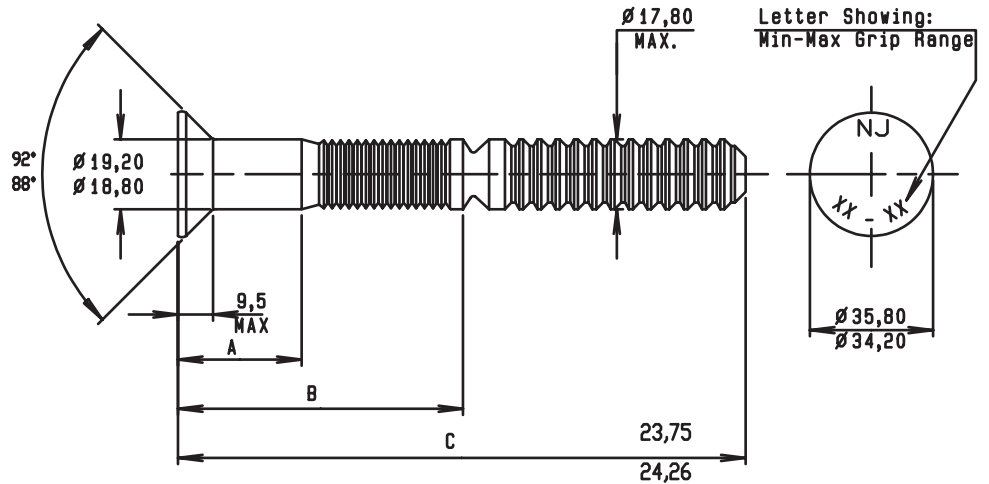
Min Ultimate Tensile:	178.4 (kN)
Clamping Load:	126.4 (kN)
Min Shear Strength:	144.2 (kN)
Max Hole Diameter:	20,50 (mm)
Max Pin Protrusion:	9,52 (mm)
Max Pin Intrusion:	1,58 (mm)

### 19mm Diameter Brazier Head



Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
19B06	3,18	4,76	37,15	38,74	107,00	110,18	6,35	12,70	NJ 06-13
19B13	9,53	11,11	43,50	45,09	113,35	116,53	12,70	19,05	NJ 13-19
19B19	15,88	17,46	49,85	51,44	119,70	122,88	19,05	25,40	NJ 19-25
19B25	22,23	23,81	56,20	57,79	126,05	129,23	25,40	31,75	NJ 25-32
19B32	28,58	30,16	62,55	64,14	132,40	135,58	31,75	38,10	NJ 32-38
19B38	34,93	36,51	68,90	70,49	138,75	141,93	38,10	44,45	NJ 38-44
19B44	41,28	42,86	75,25	76,84	145,10	148,28	44,45	50,80	NJ 44-51
19B51	47,63	49,21	81,60	83,19	151,45	154,63	50,80	57,15	NJ 51-57
19B57	53,98	55,56	87,95	89,54	157,80	160,98	57,15	63,50	NJ 57-63
19B63	60,33	61,91	94,30	95,89	164,15	167,33	63,50	69,85	NJ 63-70
19B70	66,68	68,26	100,65	102,24	170,50	173,68	69,85	76,20	NJ 70-76
19B76	73,03	74,61	107,00	108,59	176,85	180,03	76,20	82,55	NJ 76-83

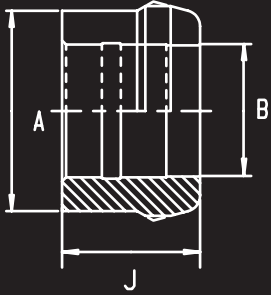
### 19mm Diameter Countersunk Head



Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
19C19	15,88	17,46	49,85	51,44	119,70	122,88	19,05	25,40	NJ 19-25
19C25	22,23	23,81	56,20	57,79	126,05	129,23	25,40	31,75	NJ 25-32
19C32	28,58	30,16	62,55	64,14	132,40	135,58	31,75	38,10	NJ 32-38
19C38	34,93	36,51	68,90	70,49	138,75	141,93	38,10	44,45	NJ 38-44
19C44	41,28	42,86	75,25	76,84	145,10	148,28	44,45	50,80	NJ 44-51
19C51	47,63	49,21	81,60	83,19	151,45	154,63	50,80	57,15	NJ 51-57
19C57	53,98	55,56	87,95	89,54	157,80	160,98	57,15	63,50	NJ 57-63
19C63	60,33	61,91	94,30	95,89	164,15	167,33	63,50	69,85	NJ 63-70
19C70	66,68	68,26	100,65	102,24	170,50	173,68	69,85	76,20	NJ 70-76
19C76	73,03	74,61	107,00	108,59	176,85	180,03	76,20	82,55	NJ 76-83

## 22mm Diameter Brazier Head

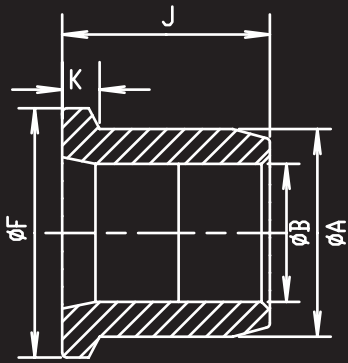
### Standard Collar Dimensions



	A	B	J
Max	34,90	23,80	28,70
Min	34,20	23,10	27,50

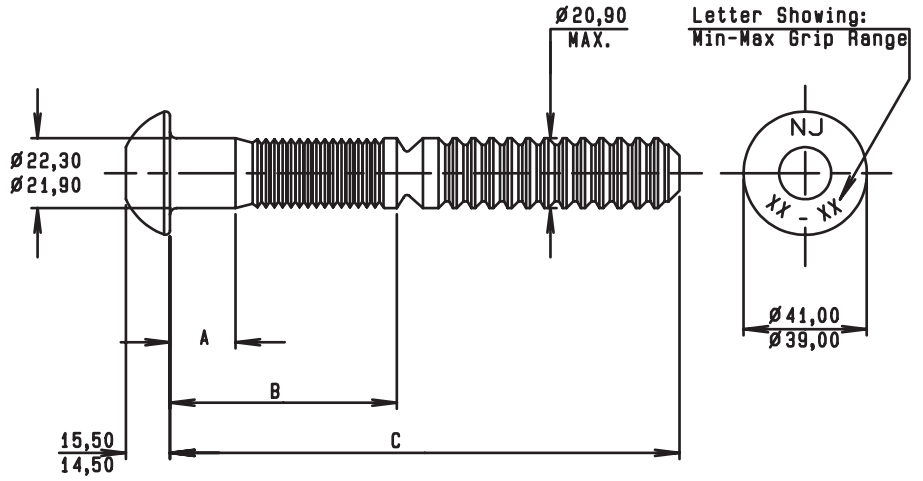
### Flange Collar Dimensions

\*Use of flanged collar reduces grip by 5.5mm

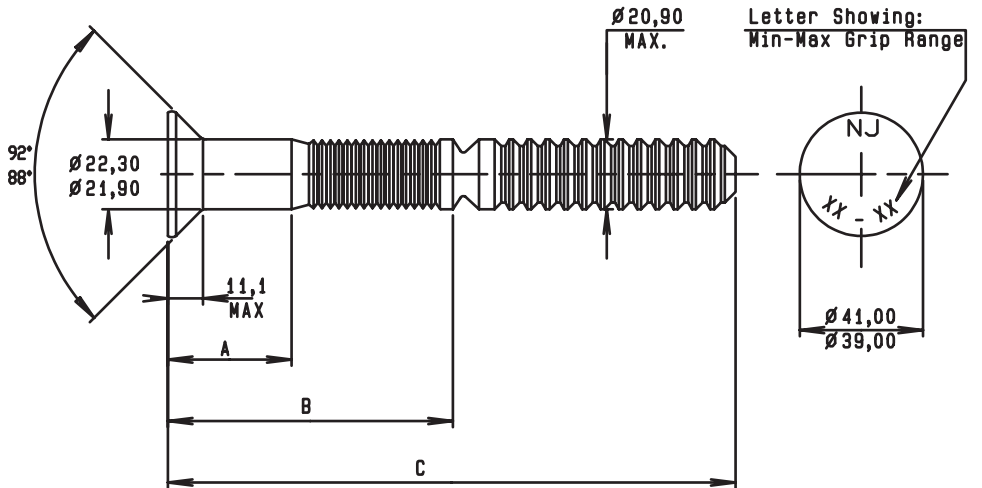


	A	B	J	F	K
Max	34,90	23,80	33,80	41,30	6,40
Min	34,50	23,10	33,00	39,70	4,75

## 22mm Diameter Countersunk Head



Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
22B06	2,66	4,50	40,31	42,15	111,74	115,44	6,35	12,70	NJ 06-13
22B13	9,01	10,85	46,66	48,50	118,09	121,79	12,70	19,05	NJ 13-19
22B19	15,36	17,20	53,01	54,85	124,44	128,14	19,05	25,40	NJ 19-25
22B25	21,71	23,55	59,36	61,20	130,79	134,49	25,40	31,75	NJ 25-32
22B32	28,06	29,90	65,71	67,55	137,14	140,84	31,75	38,10	NJ 32-38
22B38	34,41	36,25	72,06	73,90	143,49	147,19	38,10	44,45	NJ 38-44
22B44	40,76	42,60	78,41	80,25	149,84	153,54	44,45	50,80	NJ 44-51
22B51	47,12	48,95	84,76	86,60	156,19	159,89	50,80	57,15	NJ 51-57
22B57	53,46	55,30	91,11	92,95	162,54	166,24	57,15	63,50	NJ 57-63
22B63	59,81	61,65	97,46	99,30	168,89	172,59	63,50	69,85	NJ 63-70
22B70	66,16	68,00	103,81	105,65	175,24	178,94	69,85	76,20	NJ 70-76
22B76	72,51	74,35	110,16	112,00	181,59	185,29	76,20	82,55	NJ 76-83

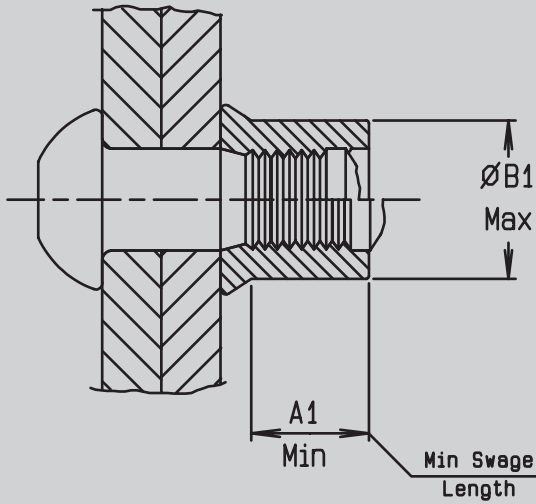


Bearing Man.	A		B		C		Grip		Marking
	Min	Max	Min	Max	Min	Max	Min	Max	
22C19	15,36	17,20	53,01	54,85	124,44	128,14	19,05	25,40	NJ 19-25
22C25	21,71	23,55	59,36	61,20	130,79	134,49	25,40	31,75	NJ 25-32
22C32	28,06	29,90	65,71	67,55	137,14	140,84	31,75	38,10	NJ 32-38
22C38	34,41	36,25	72,06	73,90	143,49	147,19	38,10	44,45	NJ 38-44
22C44	40,76	42,60	78,41	80,25	149,84	153,54	44,45	50,80	NJ 44-51
22C51	47,11	48,95	84,76	86,60	156,19	159,89	50,80	57,15	NJ 51-57
22C57	53,46	55,30	91,11	92,95	162,54	166,24	57,15	63,50	NJ 57-63
22C63	59,81	61,65	97,46	99,30	168,89	172,59	63,50	69,85	NJ 63-70
22C70	66,16	68,00	103,81	105,65	175,24	178,94	69,85	76,20	NJ 70-76
22C76	72,51	74,35	110,16	112,00	181,59	185,29	76,20	82,55	NJ 76-83

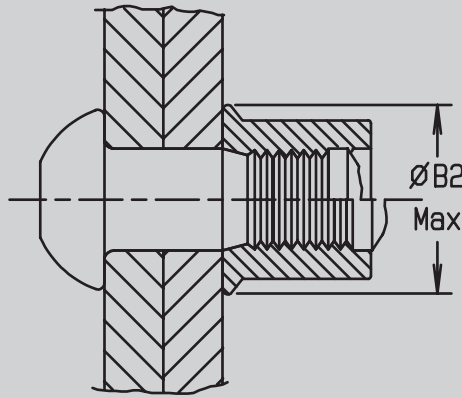
### Round & Countersunk Mechanical Properties

Min Ultimate Tensile:	246.6 (kN)
Clamping Load:	174.6 (kN)
Min Shear Strength:	193.1 (kN)
Max Hole Diameter:	23,70 (mm)
Max Pin Protrusion:	9,52 (mm)
Max Pin Intrusion:	1,58 (mm)

Pin & Collar After Placing  
Standard Profile Collar



Pin & Collar After Placing  
Flange Profile Collar



	Min	Max	Max
Diameter	ØA1	ØB1	ØB2
13 Dia	9,70	18,5	26,20
16 Dia	15,7	23,0	32,50
19 Dia	17,0	28,0	38,90
22 Dia	19,4	32,5	41,30

HOW TO IDENTIFY OUR COLLARS FOR ORDERING

**19MM**    **STDCOLLAR**

Collar Diameter

Collar types

\*Collars are zinc plated & waxed

STDCOLLAR & FLANGEDCOLLAR

HOW TO IDENTIFY OUR PINS FOR ORDERING

**19**    **B**    **06**    **ZP**

Plating types

ZP = zinc plated

HDG = Hot dipped galvanised

Grip No (taken from grip range table with standard collar)

Head Type (Brazier / Countersunk)

Pin Diameter \*25mm & 28mm are available (subject to minimum order quantities)

24 HR TOLL-FREE EMERGENCY  
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