



ETKİN TEKNİK PROFESYONEL MONTAJ SİSTEMLERİ



POP PERÇİNLER



SOMUN PERÇİNLER



PERÇİN TABANÇALARI



SAPLAMA KAYNAK MAKİNELERİ



SAPLAMA KAYNAK CİVATALARI

❖ POP PERÇİNLER

- STANDART POP PERÇİNLER
- MULTİGRİP PERÇİNLER
- AHTAPOT PERÇİNLER
- YARIKLI PERÇİNLER
- HARDLOCK PERÇİNLER
- MONOBOLT PERÇİNLER
- SIZDIRMAZ PERÇİNLER
- HARDGRIP PERÇİNLER

❖ SOMUN PERÇİNLER

- SİLİNDİR SOMUN PERÇİNLER
- ALTİKÖŞE SOMUN PERÇİNLER
- YARIM ALTİKÖŞE SOMUN PERÇİNLER
- SIZDIRMAZ SOMUN PERÇİMLER
- SAPLAMALI SOMUN PERÇİNLER

❖ PERÇİN TABANÇALARI

➤ SOMUN PERÇİN TABANÇALARI

- HİDROPNOMATİK SOMUN PERÇİN TABANÇALARI
- PNOMATİK SOMUN PERÇİN TABANÇALARI
- ŞARJLI SOMUN PERÇİN TABANÇALARI
- MANUEL SOMUN PERÇİN TABANÇALARI

➤ POP PERÇİN TABANÇALARI

- HİDROPNOMATİK POP PERÇİN TABANÇALARI
- PNOMATİK POP PERÇİN TABANÇALARI
- ŞARJLI POP PERÇİN TABANÇALARI
- MANUEL POP PERÇİN TABANÇALARI

❖ PRESİLİ BAĞLANTI ELEMANLARI

- PRESİLİ ÇAKMA CİVATALAR
- PRESİLİ ÇAKMA SOMUNLAR
- PRESİLİ ÇAKMA YÜKSELTEÇLER

❖ KAYNAK SAPLAMALARI

❖ SAPLAMA KAYNAK MAKİNELERİ

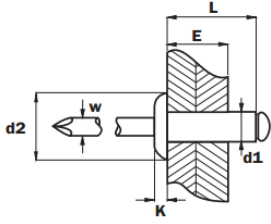
❖ KAFES SOMUNLAR


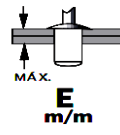


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POP PERÇİN

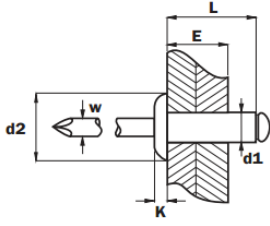
ALÜMİNYUM / ÇELİK


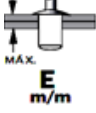




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
2,4	4	2,50	5,00	0,55	1,45	0,5 - 2,0	400	500
	6					2,0 - 4,0		
	8					4,0 - 6,0		
	10					6,0 - 8,0		
	12					8,0 - 9,5		
3.0	4	3,1	6,5	0,80	1,8	0,5 - 1,5	750	850
	5					0,5 - 2,5		
	6					1,5 - 3,5		
	7					1,5 - 4,5		
	8					3,5 - 5,0		
	9					4,5 - 6,0		
	10					5,0 - 7,0		
	12					7,0 - 9,0		
	14					9,0 - 11,0		
16	11,0 - 13,0							
18	13,0 - 15,0							
3.2	4	3,3 - 3,5	6,5	0,80	1,8	0,5 - 1,5	880	1150
	5					0,5 - 2,5		
	6					1,5 - 3,5		
	8					3,5 - 5,0		
	10					5,0 - 7,0		
	12					7,0 - 9,0		
	15					9,0 - 12,0		
	18					12,0 - 15,0		
20	15,0 - 17,0							
4.0	5	4,10	8,00	1,00	2,20	0,5 - 2,5	1250	1800
	6					1,0 - 3,0		
	7					3,0 - 4,5		
	8					3,0 - 5,0		
	10					5,0 - 6,5		
	12					6,5 - 8,5		
	14					8,5 - 10,5		
	16					10,5 - 12,5		
	18					12,5 - 14,5		
	20					14,5 - 16,5		
	25					16,5 - 21,5		
30	21,5 - 26,0							

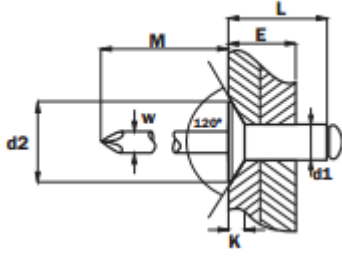
POP PERÇİN


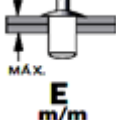


ALÜMİNYUM / ÇELİK

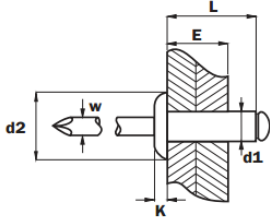



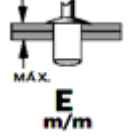


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
4,8	6	4,90	9,50	1,10	2,65	0,5 – 3,0	1850	2800
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	21					14,0 – 17,0		
	24					17,0 – 20,0		
	27					20,0 – 23,0		
	30					23,0 – 25,0		
	32					25,0 – 27,0		
	35					27,0 – 30,0		
	40					30,0 – 35,0		
45					35,0 – 40,0			
50					40,0 – 45,0			
5,0	6	5,10	9,50	1,10	2,65	0,5 – 3,0	2250	3000
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	20					14,0 – 16,0		
	25					16,0 – 21,0		
	30					21,0 – 25,0		
	35					25,0 – 30,0		
	40					30,0 – 35,0		
	45					35,0 – 40,0		
	50					40,0 – 45,0		
6,0	8	6,10	12,0	1,5	3,2	2,0 – 3,0	2500	3900
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 11,0		
	18					11,0 – 13,0		
	20					13,0 – 15,0		
	25					15,0 – 20,0		
	30					20,0 – 25,0		
	35					25,0 – 30,0		
6,4	12	6,50	13,0	1,80	3,60	2,0 – 6,0	3000	5000
	15					6,0 – 9,0		
	18					9,0 – 12,0		
	22					12,0 – 16,0		
	26					16,0 – 20,0		
	30					20,0 – 24,0		
	35					24,0 – 29,0		
7,8	15	8,00	14,0	2,00	3,60	6,0 – 9,0	6000	6500
	22					9,0 – 16,0		

POP PERÇİN HAVŞA KAFA 120°
ALÜMİNYUM / ÇELİK



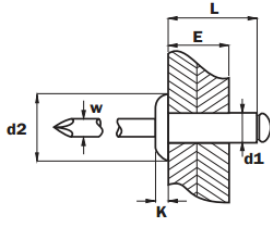
d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
2,4	6	2,50	4,50	0,80	1,45	2,0 – 4,0	400	500
	8					4,0 – 6,0		
	10					6,0 – 8,0		
3,0	6	3,10	6,00	0,90	1,80	2,0 – 3,5	750	850
	8					3,5 – 5,0		
	10					5,0 – 7,0		
	12					7,0 – 9,0		
	14					9,0 – 11,0		
	16					11,0 – 13,0		
3,2	6	3,30	6,00	0,90	1,80	2,0 – 3,5	880	1150
	8					3,5 – 5,0		
	10					5,0 – 7,0		
	12					7,0 – 9,0		
	15					9,0 – 11,0		
	18					11,0 – 13,0		
4,0	6	4,10	7,50	1,00	2,20	1,5 – 3,0	1250	1800
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,5		
	14					8,5 – 10,5		
	16					10,5 – 12,5		
	18					12,5 – 14,5		
4,8	6	4,90	9,50	1,20	2,65	2,0 – 3,0	1850	2800
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	21					14,0 – 17,0		
	24					17,0 – 20,0		
	27					20,0 – 23,0		
	30					23,0 – 25,0		
35	25,0 – 30,0							
5,0	6	5,10	9,50	1,20	2,65	2,0 – 3,0	2250	3000
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	20					14,0 – 16,0		
	25					16,0 – 21,0		
30	21,0 – 25,0							


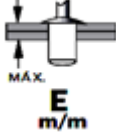






d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	6	3,30	9,50	1,10	1,80	0,5 – 3,5	850	1150
	8					3,5 – 5,0		
	10					5,0 – 7,0		
	12					7,0 – 9,0		
	16					9,0 – 13,0		
4,0	8	4,10	12,0	1,40	2,20	3,0 – 5,0	1200	1800
	10					5,0 – 6,5		
	12					6,5 – 8,5		
	14					8,5 – 10,5		
	16					10,5 – 12,5		
	18					12,5 – 14,5		
4,8	10	4,90	14,0 - 16,0	1,80	2,65	4,5 – 6,0	1850	2800
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	21					14,0 – 17,0		
	24					17,0 – 20,0		
	27					20,0 – 23,0		
	30					23,0 – 25,0		
	35					25,0 – 30,0		
	40					30,0 – 35,0		
45	35,0 – 40,0							
5,0	8	5,10	11,0 – 14,0	1,60 – 1,80	2,65	3,0 – 4,5	2250	3000
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	20					14,0 – 16,0		
	25					16,0 – 21,0		
30	21,0 – 25,0							

POP PERÇİN

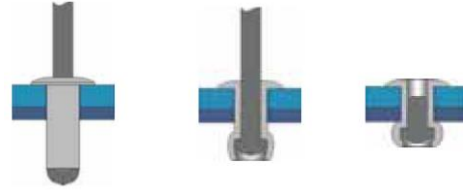
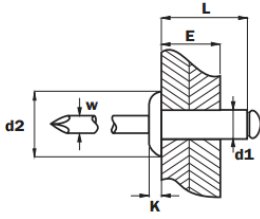
ALÜMİNYUM / PASLANMAZ


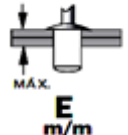

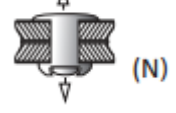


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
2,4	4	2,50	5,00	0,55	1,45	0,5 – 2,0	400	500
	6					2,0 – 4,0		
	8					4,0 – 6,0		
	10					6,0 – 8,0		
3,0	8	3,10	6,50	0,80	1,80	3,5 – 5,0	850 	750
3,2	6	3,30	6,50	0,80	1,80	1,5 – 3,5	880 	1150
	8					3,5 – 5,0		
	10					5,0 – 7,0		
	12					7,0 – 9,0		
	15					9,0 – 12,0		
	18					12,0 – 15,0		
	20					15,0 – 17,0		
4,0	6	4,10	8,00	1,00	2,20	1,0 – 3,0	1250	1800
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,5		
	14					8,5 – 10,5		
	16					10,5 – 12,5		
	18					12,5 – 14,5		
	20					14,5 – 16,5		
4,8	25					16,5 – 21,5		
	6	4,90	9,50	1,10	2,65	0,5 – 3,0	1850	2800
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	21					14,0 – 17,0		
	24					17,0 – 20,0		
	27					20,0 – 23,0		
5,0	30					23,0 – 25,0		
	35					25,0 – 30,0		
	6	5,10	9,50	1,10	2,65	0,5 – 3,0	2250	3000
	8					3,0 – 4,5		
	10					4,5 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	20					14,0 – 16,0		
	25					16,0 – 21,0		
	30					21,0 – 25,0		
	35					25,0 – 30,0		
6,0	40					30,0 – 35,0		
	8	6,10	12,00	1,50	3,20	2,0 – 3,0	3500	3900
	10					3,0 – 5,0		
	12					5,0 – 7,0		
	14					7,0 – 9,0		
	16					9,0 – 11,0		
	18					11,0 – 13,0		
20					13,0 – 15,0			

POP PERÇİN

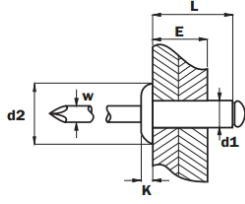
ÇELİK / ÇELİK


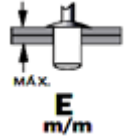




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,0	6	3,10	6,50	0,80	2,00	0,5 – 3,0	1100	1500
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,0		
3,2	6	3,30	6,50	0,80	2,00	0,5 – 3,0	1400	1700
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,0		
	14					8,0 – 10,0		
4,0	6	4,10	8,00	1,00	2,40	1,0 – 3,0	2000	2400
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 9,0		
	14					9,0 – 10		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
4,8	6	4,90	9,50	1,10	2,93	1,0 – 3,0	2800	3900
	8					2,5 – 4,0		
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 9,5		
	16					8,0 – 11,0		
	18					10,0 – 13,0		
	21					11,0 – 15,0		
	24					15,0 – 19,5		
	30					19,5 – 25,0		
35					25,0 – 30,0			

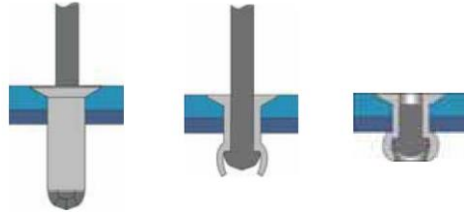
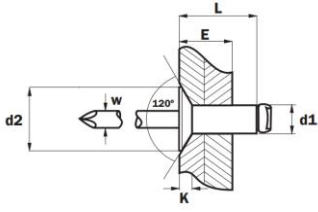
POP PERÇİN


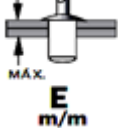
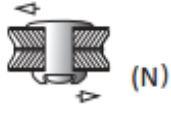
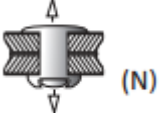
ÇELİK / ÇELİK



d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
5,0	8	5,10	9,50	1,10	2,93	2,5 – 4,0	3500	4800
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 9,5		
	16					9,5 – 10,0		
	18					10,0 – 11,0		
	20					11,0 – 15,0		
	25					15,0 – 19,5		
	30					19,5 – 25,0		
	35					25,0 – 30,0		
	40					30,0 – 34,0		
	45					34,0 – 39,0		
50					39,0 – 44,0			
60					49,0 – 54,0			
65					54,0 – 59,0			
6,0	8	6,10	11,50	1,50	3,60	1,5 – 3,0	4400	6000
	10					3,0 – 4,0		
	12					4,0 – 6,0		
	14					6,0 – 8,0		
	16					8,0 – 10,0		
	18					10,0 – 12,0		
	20					12,0 – 14,0		
	25					14,0 – 19,0		
	30					19,0 – 24,0		
6,4	8	6,50	13,00	1,80	3,85	1,5 – 3,0	5300	7000
	10					3,0 – 4,0		
	12					4,0 – 6,0		
	15					6,0 – 9,0		
	18					9,0 – 11,0		
	20					9,0 – 13,0		
	22					13,0 – 16,0		
	25					13,0 – 19,0		
	30					19,0 – 24,0		
35					24,0 – 29,0			

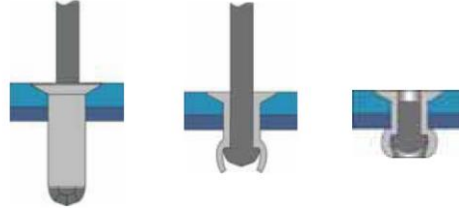
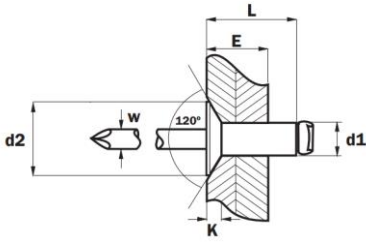
POP PERÇİN HAVŞA KAFA 120°
ÇELİK / ÇELİK







d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	6	3,30	6,00	0,90	2,00	1,5 – 3,5	1400	1700
	8					3,5 – 5,5		
	10					5,5 – 7,0		
	12					7,0 – 9,0		
4,0	6	4,10	7,50	1,00	2,40	2,0 – 3,0	2000	2400
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,0		
	14					8,0 – 10,0		
4,8	8	4,90	9,50	1,50	2,93	2,5 – 4,0	3000	3900
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 10,0		
	16					10,0 – 12,0		
5,0	12	5,10	9,50	1,50	2,93	6,0 – 8,0	3500	4800
	25					15,0 – 19,5		
6,4	10	6,50	12,50	2,00	8,85	3,0 – 4,0	4300	6000
	12					4,0 – 6,0		
	13					5,0 – 7,0		
	14					6,0 – 8,0		
	16					8,0 – 10,0		

POP PERÇİN HAVŞA KAFA 120°

PASLANMAZ / PASLANMAZ

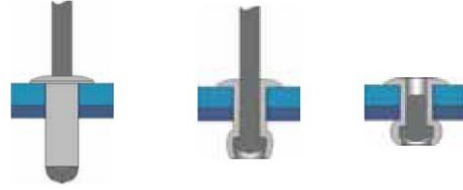
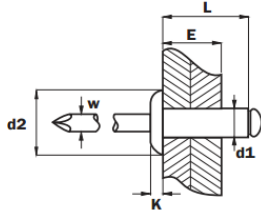



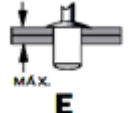


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	6	3,30	6,00	0,90	2,10	1,5 - 3,0	2000	2900
	8					3,0 - 5,5		
	10					5,5 - 6,5		
	12					6,5 - 8,5		
4,0	8	4,10	7,50	1,00	2,40	2,5 - 4,5	3500	4000
	10					4,5 - 6,5		
	12					6,5 - 8,5		
	14					8,5 - 10,0		
4,8	8	4,90	9,00	1,20	3,10	2,5 - 4,0	4600	5600
	10					4,0 - 6,0		
	12					6,0 - 8,0		
	14					8,0 - 10,0		
	16					12,0 - 14,0		



POP PERÇİN

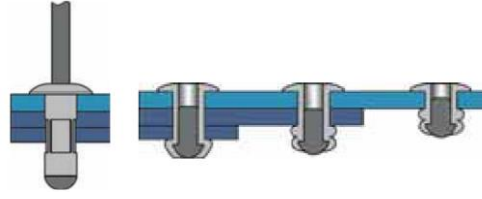
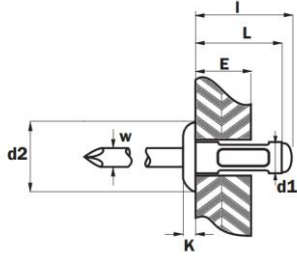
PASLANMAZ / PASLANMAZ


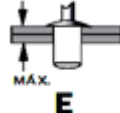
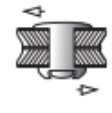
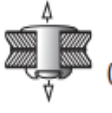


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
2,4	6	2,50	5,00	0,80	1,50	3,0 – 5,0	1000	1250
	8					5,0 – 6,5		
	10					6,5 – 8,5		
	12					8,5 – 10,50		
3,0	5	3,10	6,20	1,00	2,00	0,5 – 2,5	1900	2200
	6					0,5 – 3,0		
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,5		
	14					8,5 – 10,5		
3,2	6	3,30	6,20	1,00	2,10	0,5 – 3,0	2000	2900
	8					3,0 – 5,0		
	10					5,0 – 6,5		
	12					6,5 – 8,5		
	15					8,5 – 12,0		
	18					12,0 – 15,0		
4,0	6	4,10	8,00	1,30	2,40	1,0 – 2,5	3500	4000
	8					2,5 – 4,5		
	10					4,5 – 6,5		
	12					6,5 – 8,5		
	14					8,5 – 10,0		
	16					10,0 – 12,0		
	18					12,0 – 14,0		
	20					14,0 – 16,0		
4,8	8	4,90	8,70	1,40	3,10	2,0 – 4,0	4500	5600
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 9,5		
	16					9,5 – 11,0		
	18					11,0 – 13,0		
	20					13,0 – 16,0		
	25					16,0 – 19,0		
	30					20,0 – 26,0		
5,0	8	5,10	8,75	1,40	3,10	2,0 – 4,0	5100	6600
	10					4,0 – 6,0		
	12					6,0 – 8,0		
	14					8,0 – 9,5		
	16					9,5 – 11,0		
	20					13,0 – 16,0		
	25					16,0 – 19,0		
	30					20,0 – 25,0		
	35					25,0 – 30,0		
6,4	12	6,50	12,70	1,70	3,85	2,0 – 6,0	7570	9350
	15					6,0 – 9,0		
	18					9,0 – 12,0		
	20					12,0 – 14,0		
	25					14,0 – 18,0		

MULTİGRİP PERÇİN

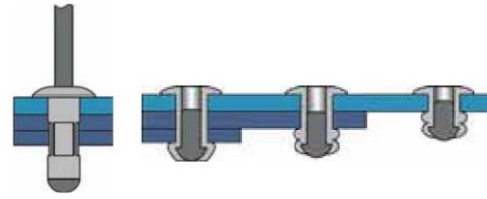
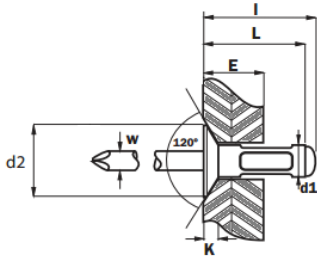
ALÜMİNYUM / ÇELİK


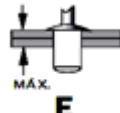
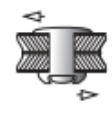
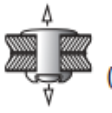


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
3,2	8,5	3,30-3,50	6,20	1,10	1,80	10,10	0,5 – 5,0	630	980
	9,5					11,60	1,5 – 6,5		
	11,0					13,10	4,0 – 8,0		
4,0	6,8	4,10-4,30	8,20	1,40	2,20	9,10	0,5 – 3,5	1200	1600
	9,5					11,80	1,0 – 6,0		
	12,5					14,80	4,0 – 9,0		
	16,5					18,80	6,0 – 13,0		
4,8	10,5	4,90-5,10	9,90	1,80	2,75	13,10	1,5 – 6,5	1470	2400
	15,0					17,60	4,5 – 11,0		
	16,5					19,10	6,5 – 13,0		
	19,5					22,10	8,5 – 16,0		
	24,5					27,10	12,5 – 20,0		

MULTİGRİP PERÇİN HAVŞA KAFA 120°

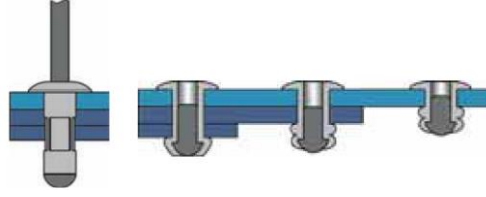
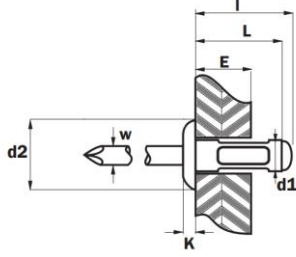
ALÜMİNYUM / ÇELİK



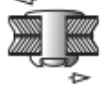



d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
3,2	9,5	3,30-3,50	5,80	1,10	1,80	11,00	1,5 – 6,0	700	980
4,0	11,0	4,10-4,30	7,30	1,30	2,20	13,80	2,0 – 8,0	1200	1600
4,8	12,0	4,90-5,10	8,80	1,60	2,75	14,20	2,0 – 7,5	1500	2400
	16,5					18,70	6,0 – 12,0		

MULTİGRİP PERÇİN GENİŞ KAFA

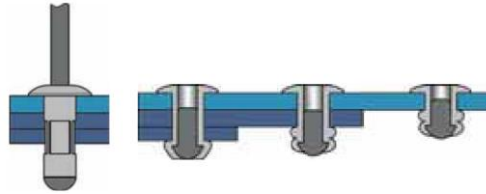
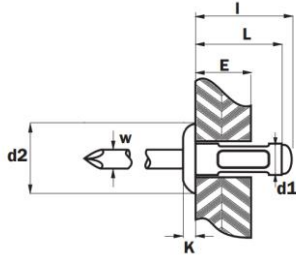
ALÜMİNYUM / ÇELİK


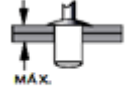




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
3,2	8,0	3,30-3,50	9,50	1,10	1,80	10,00	0,5 – 5,0	650	1000
4,0	13,0 16,0	4,10-4,30	12,0	1,40	2,20	15,30 18,80	3,0 – 9,0 6,0 – 13,0	1050	1500
4,8	10,5 17,0 25,0	4,90-5,10	16,0	1,80	2,75	13,10 19,60 27,60	1,5 – 6,0 6,0 – 12,5 12,0 – 19,5	1500	2400

MULTİGRİP PERÇİN

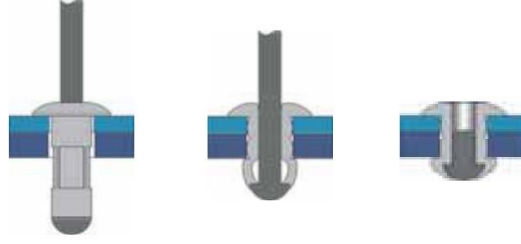
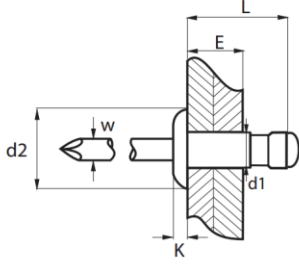
ALÜMİNYUM / PASLANMAZ


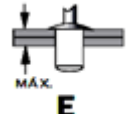




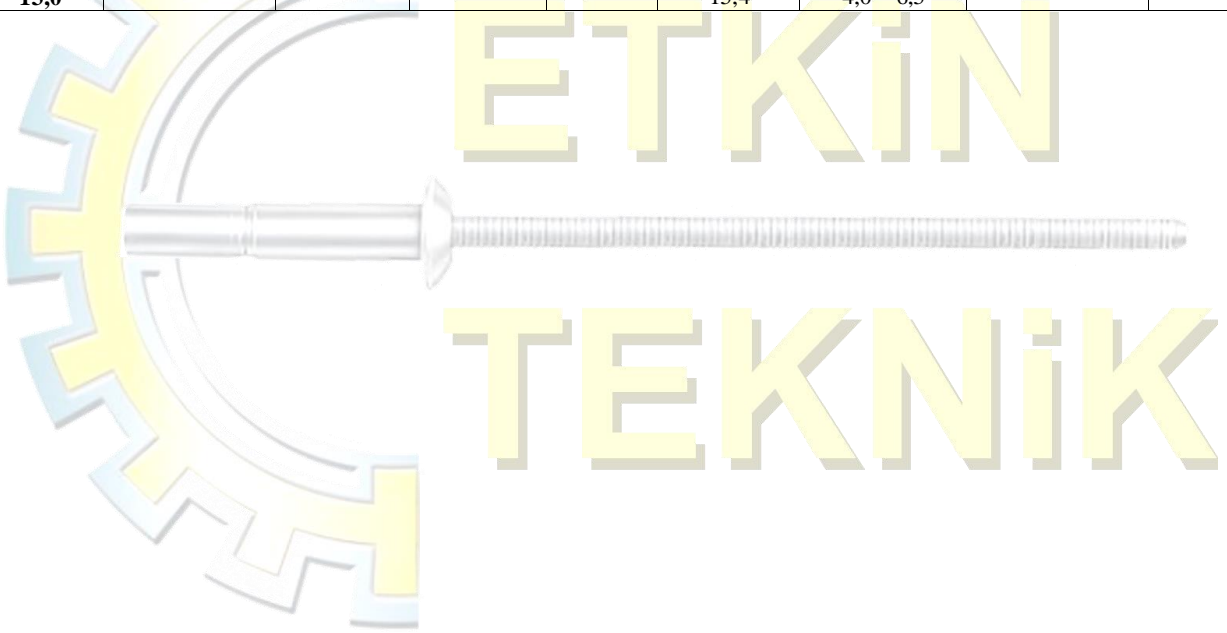
d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
3,2	8,0 11,0	3,30-3,50	6,20	1,10	1,80	10,50 13,00	0,5 – 5,0 4,0 – 8,0	650	1000
4,0	6,8 9,5 12,5 16,5	4,10-4,30	8,20	1,40	2,20	9,10 11,80 16,80 18,80	0,5 – 3,5 1,0 – 6,0 4,0 – 9,0 6,0 – 13,0	1200	1600
4,8	10,5 15,0 16,5 24,5	4,90-5,10	9,90	1,80	2,75	13,10 17,10 19,10 22,10	1,5 – 6,5 4,5 – 11,0 6,5 – 13,0 12,5 – 20,0	1500	2400

MULTIGRIP PERÇİN

ÇELİK / ÇELİK

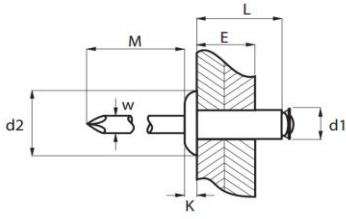



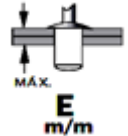

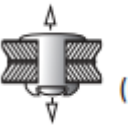
d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
3,2	9,0 13,0	3,40	6,50	1,00	2,00	11,3 15,3	2,0 – 5,0 4,0 – 6,0	1400	1900
4,0	11,0	4,10	8,00	1,40	2,75	14,2	2,0 – 5,0	1850	2500
4,8	10,5 13,0	4,90	9,50	1,80	2,93	12,9 15,4	1,0 – 4,5 4,0 – 6,5	2000	3500



AHTAPOT PERÇİN

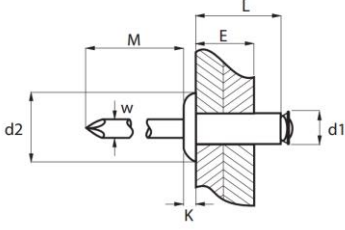
ALÜMİNYUM / ÇELİK


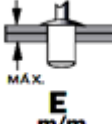




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	8	3,40	6,50	0,80	1,80	3,5	880	1150
	10					5,0		
	12					7,0		
	14					9,0		
	16					11,0		
	18					13,0		
4,0	8	4,20	8,00	1,00	2,20	4,0	1200	1400
	10					6,0		
	12					8,0		
	14					10,0		
	16					12,0		
	18					14,0		
	20					16,0		
	25					21,0		
4,8	10	5,00	9,50	1,10	2,73	5,0	1600	1800
	12					7,0		
	14					9,0		
	16					11,0		
	18					13,0		
	21					16,0		
	24					19,0		
	27					22,0		
	30					25,0		
	32					27,0		
	35					30,0		
	40					32,0		
5,0	45	5,20	9,30	1,50	2,73	32,0	2000	2100
	40					37,0		
	50					42,0		
	55					47,0		
	60					52,0		
	65					57,0		
	70					62,0		
	75					68,0		
	80					72,0		
	90					80,0		
	100					90,0		
	110					100,0		
	120					110,0		
	130					120,0		
6,5	140					130,0		
	150					140,0		
	160					150,0		
	170					160,0		
	180					170,0		
	190					180,0		
	35	6,60	13,00	2,00	3,50	25,0	2450	3500
50					40,0			
80					70,0			
100					90,0			
120					110,0			
150					140,0			
175					165,0			
190					180,0			

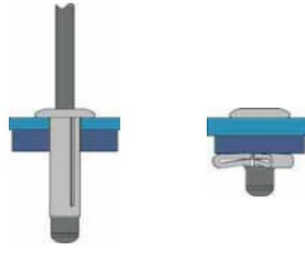
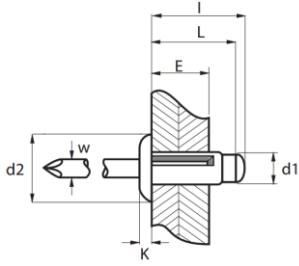
AHTAPOT PERÇİN GENİŞ KAFA





ALÜMİNYUM / ÇELİK



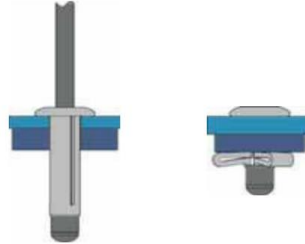
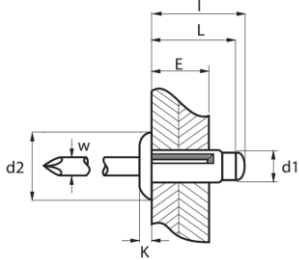
d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
4,0	8	4,20	12,00	1,40	2,20	4,0	1750	1450
	10					6,0		
	12					8,0		
	14					12,0		
	16					14,0		
	18					16,0		
	20					18,0		
4,0	10	5,00	14,00	1,80	2,73	5,0	2100	1570
	12					7,0		
	14					9,0		
	16					11,0		
	18					13,0		
	21					16,0		
	24					19,0		
	27					22,0		
30					25,0			
4,8	35					30,0		
	21	5,00	11,00	1,80	2,73	16,0	2100	1570


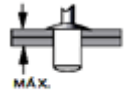


YARIKLI PERÇİN ALÜMİNYUM / ALÜMİNYUM



d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
4,0	13,6 18,8 24,5	4,20-4,50	8,00	1,40	2,40	15,40 20,60 26,30	1,0 – 3,0 1,0 – 7,0 4,0 – 12,0	730	950
4,0	15,3 20,5 24,5 28,0	5,00-5,30	10,00	1,60	2,82	16,70 21,90 25,90 29,40	1,0 – 4,0 1,0 – 9,0 4,0 – 12,0 6,0 – 16,0	900	1150

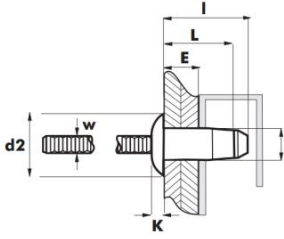
YARIKLI PERÇİN GENİŞ KAFA ALÜMİNYUM / ALÜMİNYUM


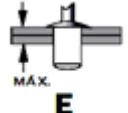

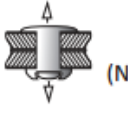


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
4,0	18,8	4,20-4,50	12,00	1,40	2,40	20,60	1,0 – 7,0	700	880
4,8	20,5 20,5 24,5	5,00-5,30	14,00 16,00 14,00	1,60	2,82	21,90 21,90 25,90	1,0 – 9,0 1,0 – 9,0 4,0 – 12,0	900	1150

HARDLOCK PERÇİN

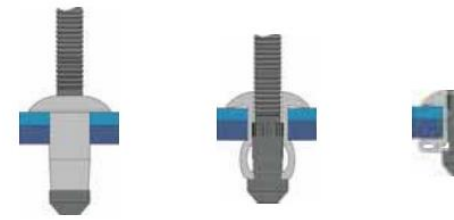
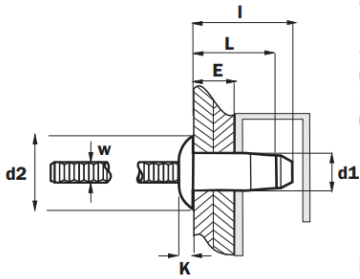
ALÜMİNYUM / ALÜMİNYUM


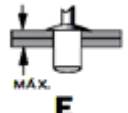

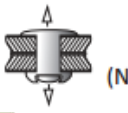


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
6,4	10,5	6,70-6,90	13,10	2,60	4,20	15,00	2,8 – 4,8	5000	2800
	12,5						4,8 – 6,8	5200	
	14,5						6,8 – 8,8	5400	
	16,5						8,8 – 10,8	5400	
	18,5						10,8 – 12,8	5400	

HARDLOCK PERÇİN

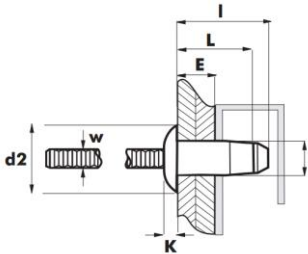
ÇELİK / ÇELİK


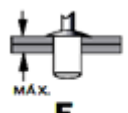

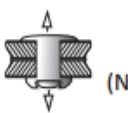


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
6,4	10,5	6,70 – 6,90	13,10	2,60	4,00	15,00	2,8 – 4,8	12000	7000
	12,5						4,8 – 6,8	12500	
	14,5						6,8 – 8,8	14000	
	16,5						8,8 – 10,8	15000	
	18,5						10,8 – 12,8	16000	
	20,5						12,8 – 14,8	16000	

HARDLOCK PERÇİN

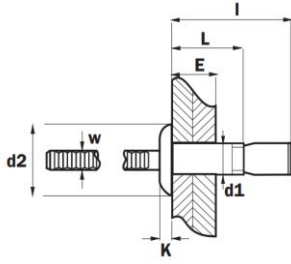
PASLANMAZ / PASLANMAZ


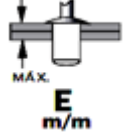
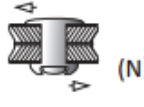
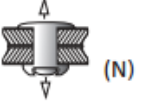


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
6,4	14,5	6,70 – 6,90	13,10	2,60	4,00	19,0	6,8 – 8,8	15000	8000
	16,5						8,8 – 10,8	16000	

MONOBOLT PERÇİN

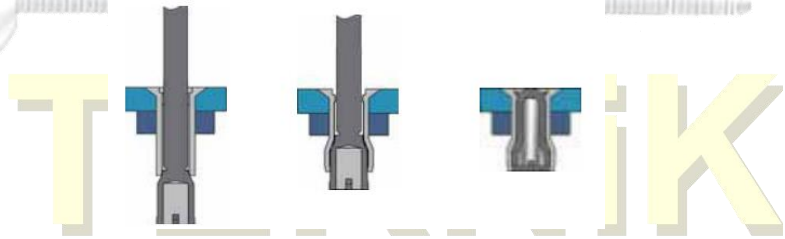
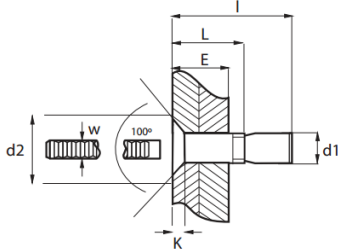
ÇELİK / ÇELİK


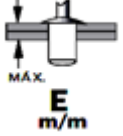
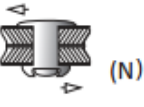
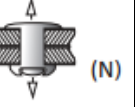


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
4,8	10,3 13,5	4,90 – 5,10	9,70	1,80	3,00	18,5 24,0	1,5 – 6,8 1,5 – 11,0	6400	5100
6,5	14,0 20,0 22,0	6,60 – 7,00	13,00	2,50	4,00	25,0 35,0 37,0	2,0 – 9,5 2,0 – 16,0 6,0 – 18,0	11700	10400
9,7	22,0	9,90 – 10,40	20,00	3,70	5,90	36,2	3,0 – 15,5	26300	17500

MONOBOLT PERÇİN HAVŞA KAFA 100°

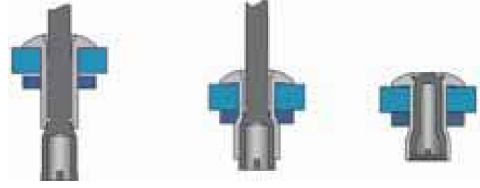
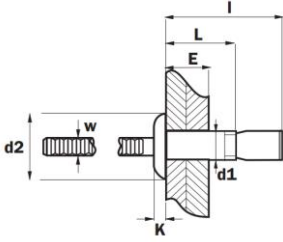
ÇELİK / ÇELİK


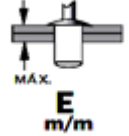




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 MAX. E m/m	 (N)	 (N)
4,8	12,3 16,5	4,90 – 5,10	8,70	1,80	3,00	20,00 27,00	3,2 – 8,4 3,2 – 12,2	6400	5100
6,5	16,5 22,5	6,60 – 7,00	10,10	2,00	4,00	28,50 37,50	3,0 – 12,0 6,0 – 8,0	11900	10500

MONOBOLT PERÇİN

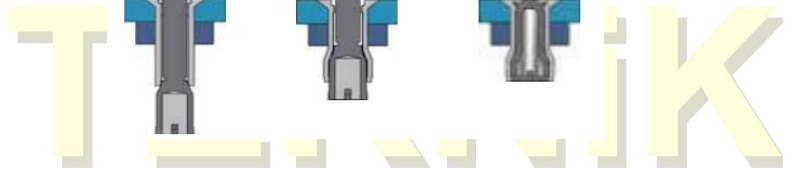
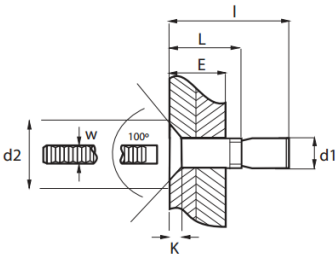
PASLANMAZ / PASLANMAZ


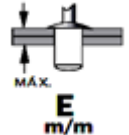




d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
4,8	10,3 13,5	4,90 – 5,10	9,70	1,80	3,00	18,0 24,0	1,5 – 6,8 1,5 – 11,0	5800	5000
6,5	14,0 20,0	6,60 – 7,00	13,00	2,50	4,00	24,0 32,0	1,0 – 9,5 2,0 – 16,0	11700	10400

MONOBOLT PERÇİN HAVŞA KAFA 100°

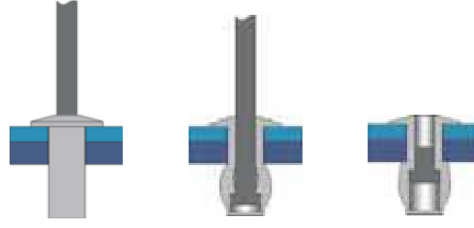
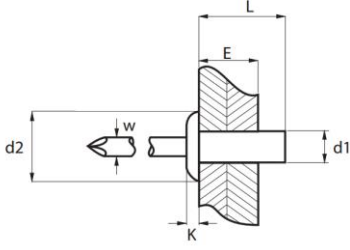
PASLANMAZ / PASLANMAZ


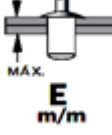
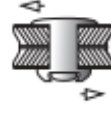



d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
6,5	16,0	6,60 - 7,00	10,10	1,50	4,00	26,0	3,0 – 12,0	11700	10400

SIZDIRMAZ PERÇİN

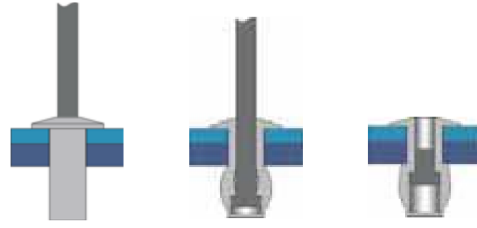
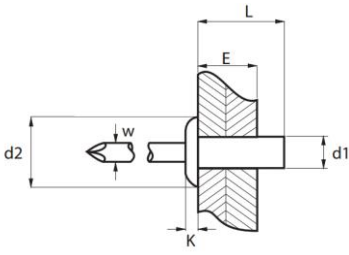
ALÜMİNYUM / ÇELİK


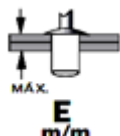




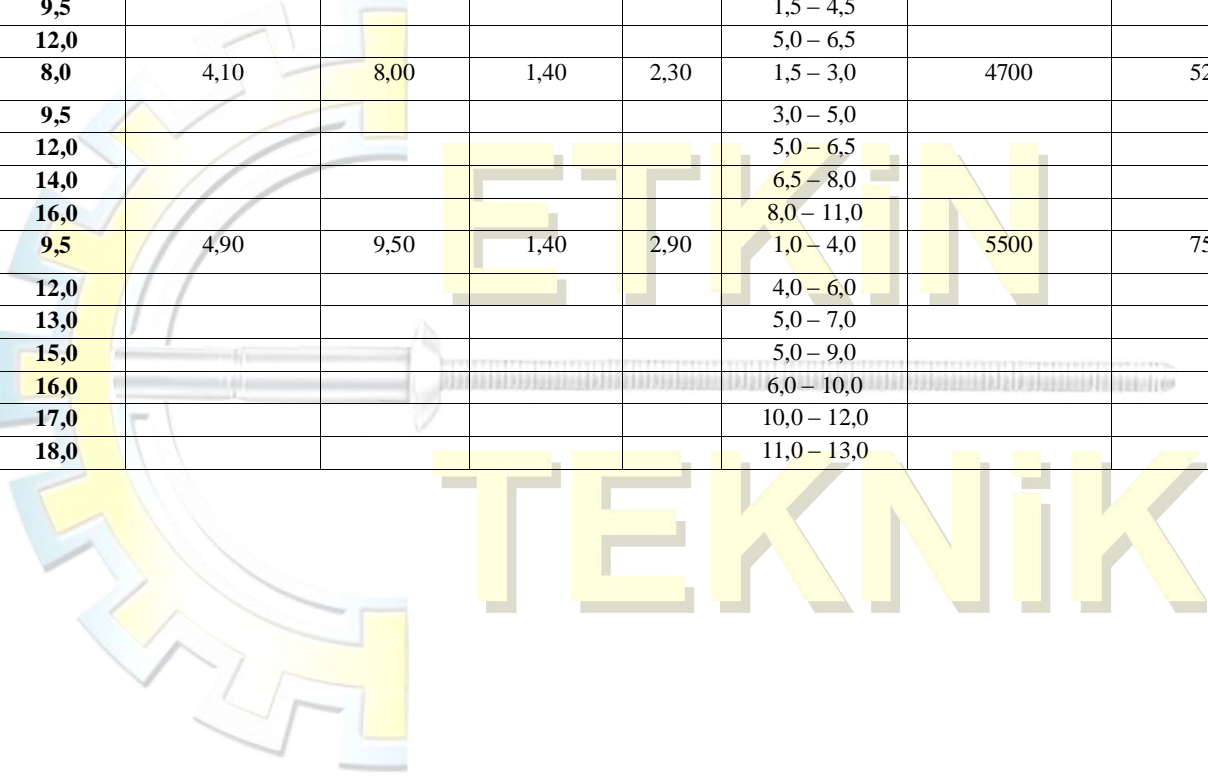
d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	6,5	3,30	6,00	0,90	1,70	0,5 – 2,0	1100	1450
	8,0					2,0 – 3,5		
	9,5					3,5 – 5,0		
	11,0					5,0 – 6,5		
	12,5					6,5 – 8,0		
4,0	8,0	4,10	8,00	1,40	2,20	0,5 – 3,5	1600	2200
	9,5					3,5 – 5,0		
	11,0					5,0 – 6,5		
	12,5					6,5 – 8,0		
	14,5					8,0 – 10,0		
4,8	8,5	4,90	9,50	1,50	2,65	0,5 – 3,5	2200	3100
	9,5					3,5 – 5,0		
	11,0					5,0 – 6,5		
	13,0					6,5 – 8,0		
	14,5					8,0 – 9,5		
	16,0					9,5 – 11,0		
	18,0					11,0 – 13,0		
	21,0					13,0 – 16,0		
25,0					16,0 – 20,0			
6,4	12,5	6,50	12,50	1,80	3,60	1,5 – 6,5	4000	4900
	15,5					6,5 – 9,5		

SIZDIRMAZ PERÇİN

PASLANMAZ / PASLANMAZ

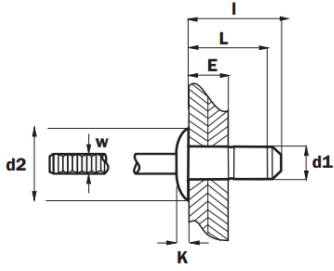



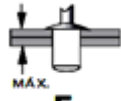


d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	 E m/m	 (N)	 (N)
3,2	8,0	3,30	6,00	1,00	1,90	1,5 - 3,0	3200	3600
	9,5					1,5 - 4,5		
	12,0					5,0 - 6,5		
4,0	8,0	4,10	8,00	1,40	2,30	1,5 - 3,0	4700	5200
	9,5					3,0 - 5,0		
	12,0					5,0 - 6,5		
	14,0					6,5 - 8,0		
	16,0					8,0 - 11,0		
4,8	9,5	4,90	9,50	1,40	2,90	1,0 - 4,0	5500	7550
	12,0					4,0 - 6,0		
	13,0					5,0 - 7,0		
	15,0					5,0 - 9,0		
	16,0					6,0 - 10,0		
	17,0					10,0 - 12,0		
	18,0					11,0 - 13,0		



HARDGRIP PERÇİN

ÇELİK / ÇELİK



d1 Ø m/m	L Nominal m/m	 m/m	d2 Ø m/m	K m/m	W m/m	I (MAX) m/m	 E m/m	 (N)	 (N)
3,2	7,0	3,30 – 3,50	6,50	1,00	2,00	10,00	1,0 – 3,0	1200	1300
	12,00					3,0 – 5,0			
	15,00					5,0 – 7,0			
4,0	7,5	4,10 – 4,30	7,70	1,30	2,60	10,50	1,0 – 3,0	2400	2800
	8,5					2,0 – 4,0			
	9,5					3,0 – 5,0			
	12,5					5,0 – 7,0			
4,8	9,0	4,90 – 5,10	9,20	1,20	3,00	12,00	1,5 – 3,5	3500	3800
	11,5					3,5 – 6,0			
	14,5					6,0 – 8,5			
	15,50					5,0 – 7,0			
6,4	10,5	6,10 – 6,30	12,00	2,00	4,00	14,00	1,5 – 4,0	4200	5400
	13,5					3,0 – 6,0			
	16,5					6,0 – 9,0			
	19,5					9,0 – 12,0			
	23,00					9,0 – 12,0			

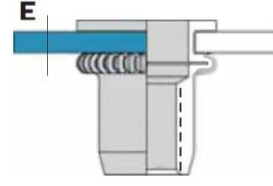
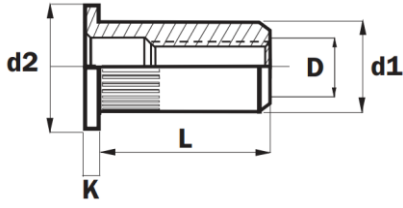




SOMUN PERÇİN

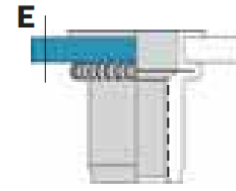
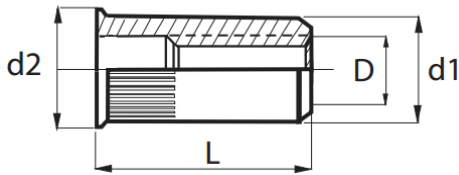


SİLİNDİR SOMUN PERÇİN FLANŞLI GENİŞ KAFA ÇELİK



D	MIN MAX E m/m	Nominal L m/m	d1 Ø m/m	d2 Ø m/m	K m/m	m/m	(N)	(N)	(Nm)
M 3	0,25 – 2,0	8,50	4,90	7,50	1,00	5,10	2400	4100	2,2
M 4	0,5 – 3,0 3,0 – 4,5	9,50 12,25	5,90	9,00	1,00	6,10	3900	7900	4,5
M 5	0,5 – 3,0 3,0 – 5,5	12,00 15,00	6,90	10,00	1,00	7,10	5800	9800	5,8
M 6	0,5 – 3,0 3,0 – 5,5	14,50 16,50	8,90	13,00	1,50	9,10	7100	18500	18,0
M 8	0,5 – 3,0 3,0 – 5,5	16,50 18,50	10,90	16,00	1,50	11,10	8400	29800	34,5
M 10	1,0 – 3,5 3,5 – 6,0 2,4 – 4,0	19,50 21,50 19,50	12,90	19,00	1,70	13,10	11000	43300	60,0
M 12	1,0 – 4,0	25,00	15,90	23,00	2,00	16,10	14700	47700	161,5

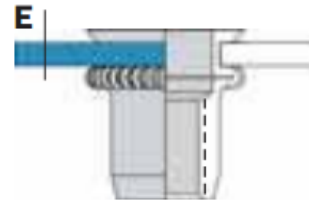
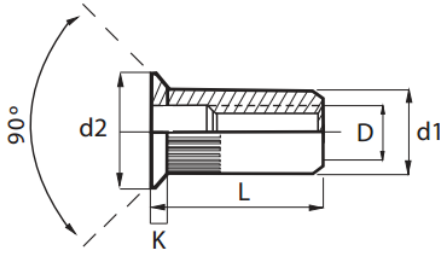
SİLİNDİR SOMUN PERÇİN SIFIR KAFA ÇELİK



D	MIN MAX E m/m	Nominal L m/m	d1 Ø m/m	d2 Ø m/m	m/m	(N)	(N)	(Nm)
M 4	0,5 – 2,0	10,40	5,90	7,00	6,10	3900	7900	2,9
M 5	0,5 – 3,0	11,50	6,90	8,00	7,10	5800	9800	6,0
M 6	0,5 – 3,0 3,0 – 5,5	14,50 16,50	8,90	10,00	9,10	6500	16500	10,1
M 8	0,5 – 3,0 3,0 – 5,5	16,80 19,00	10,90	12,00	11,10	8400	29800	15,5
M 10	0,7 – 3,5 3,5 – 6,00	20,80 23,50	12,90	14,00	13,10	11000	43300	20,0
M 12	1,0 – 3,5	24,20	15,90	17,00	16,10	17200	57800	30,0

SİLİNDİR SOMUN PERÇİN HAVŞA KAFA

ÇELİK

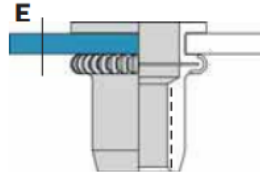
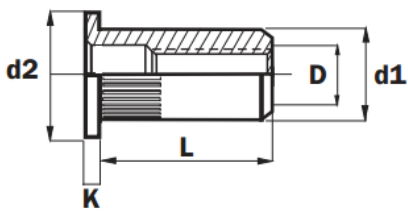


D	MIN MAX E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	K m/m	m/m	(N)	(N)	(Nm)
M 4	1,5 - 3,0	11,00	5,90	8,50	1,50	6,10	3900	7900	3,3
M 5	1,5 - 4,0	13,00	6,90	10,00	1,50	7,10	5800	9800	6,5
M 6	1,5 - 4,0	16,00	8,90	13,00	1,50	9,10	7100	19600	20,0
M 8	1,5 - 4,0 2,0 - 4,5	18,50	10,90	14,00	1,50	11,10	8400	29800	22,0
M10	1,5 - 4,5	22,00	12,90	16,00	1,50	13,10	11000	43300	34,6



SİLİNDİR SOMUN PERÇİN FLANŞLI GENİŞ KAFA

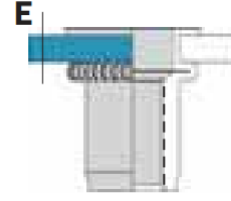
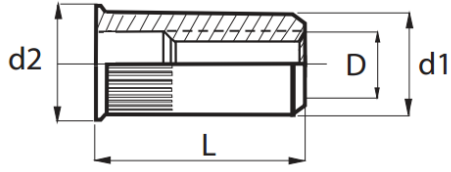
PASLANMAZ

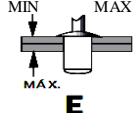

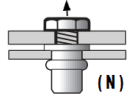
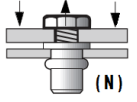
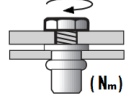


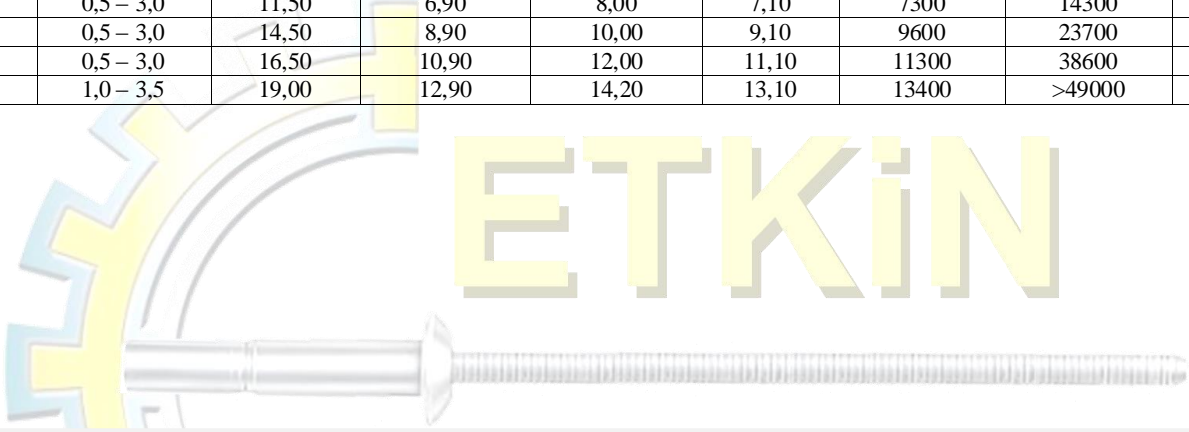
D	MIN MAX E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	K m/m	m/m	(N)	(N)	(Nm)
M 4	0,5 - 2,0	9,50	5,90	9,00	1,00	6,10	5600	9100	6,4
M 5	0,5 - 3,0 2,0 - 5,5	12,00 15,00	6,90	10,00	1,00	7,10	6800	15800	8,4
M 6	0,5 - 3,0	14,50	8,90	13,00	1,50	9,10	9000	23800	26,7
M 8	0,5 - 3,0 3,0 - 5,5	16,50 18,50	10,90	16,00	1,50	11,10	10600	40600	62,5
M 10	1,0 - 3,5	19,00	12,90	17,00	2,0	13,10	11300	>49000	111,7

SİLİNDİR SOMUN PERÇİN SIFIR KAFA

PASLANMAZ

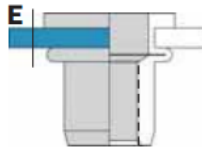
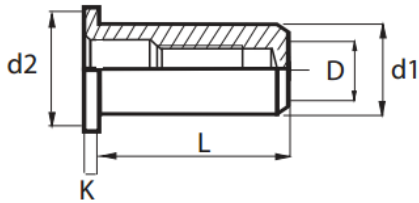


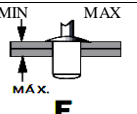

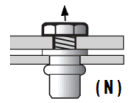
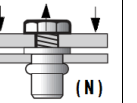
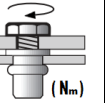
D	 E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	 m/m			
M 3	0,25 – 2,0	9,75	4,90	6,00	5,10	2700	3100	2,3
M 4	0,5 – 2,0	10,50	5,90	7,00	6,10	4800	10300	5,5
M 5	0,5 – 3,0	11,50	6,90	8,00	7,10	7300	14300	8,6
M 6	0,5 – 3,0	14,50	8,90	10,00	9,10	9600	23700	14,7
M 8	0,5 – 3,0	16,50	10,90	12,00	11,10	11300	38600	20,0
M 10	1,0 – 3,5	19,00	12,90	14,20	13,10	13400	>49000	27,5



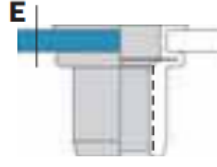
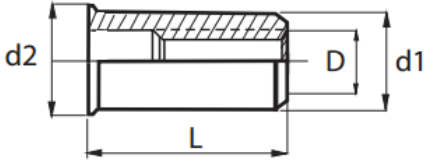
SİLİNDİR SOMUN PERÇİN FLANŞLI GENİŞ KAFA

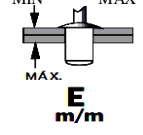

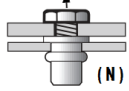
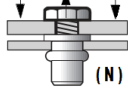
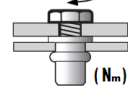
ALÜMİNYUM

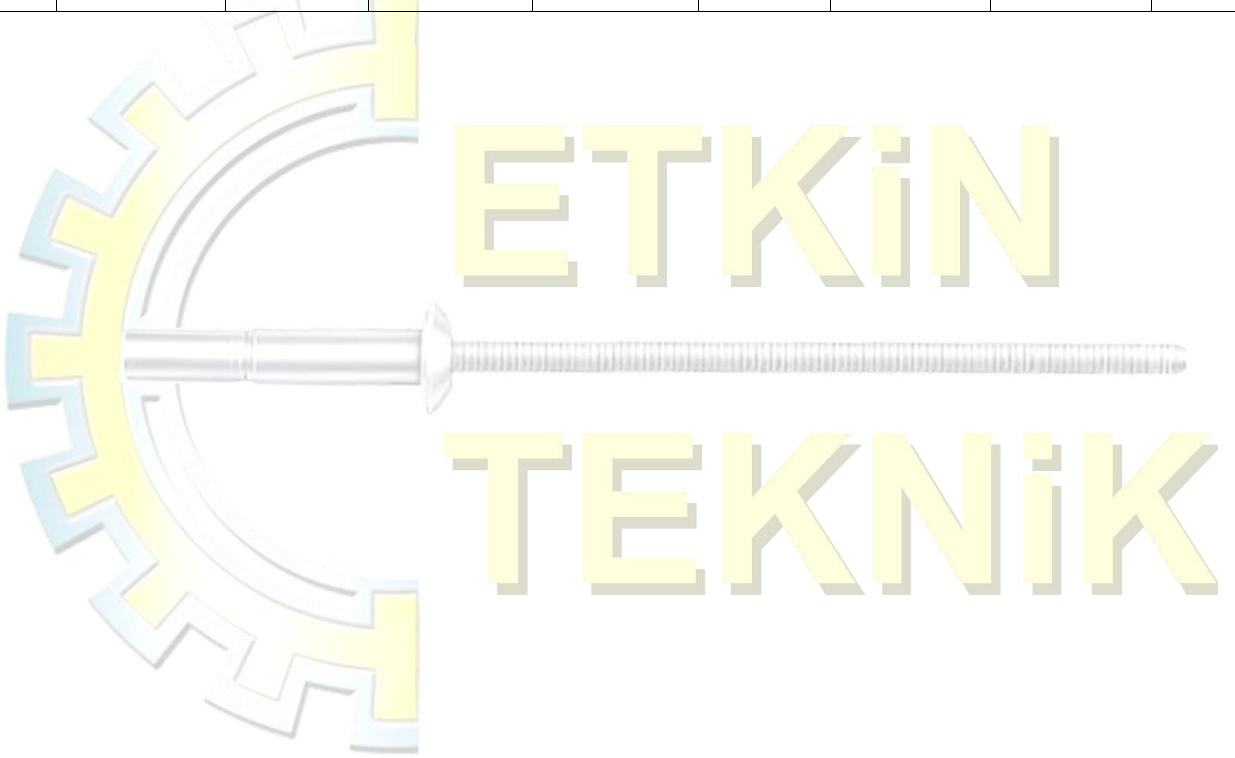


D	 E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	K m/m	 m/m			
M 4	0,5 – 2,0	9,50	5,90	9,00	1,00	6,10	3400	4300	2,0
M 5	0,5 – 3,0 3,0 – 5,5	12,00 15,00	6,90	10,00	1,00	7,10	4400	8300	5,5
M 6	0,5 – 3,0 3,0 – 5,5	14,50 16,50	8,90	13,00	1,50	9,10	5000	10500	9,0
M 8	0,5 – 3,5 3,0 – 5,5	16,50 18,50	10,90	16,00	1,50	11,10	6000	15400	16,9

SİLİNDİR SOMUN PERÇİN SIFIR KAFA ALÜMİNYUM

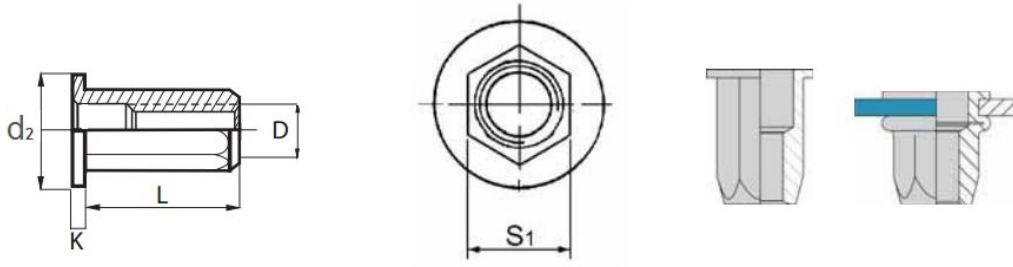


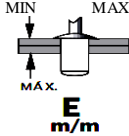

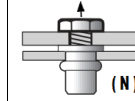
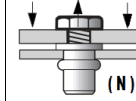
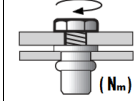
D	 E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	 m/m	 (N)	 (N)	 (Nm)
M 5	0,5 – 3,0	12,00	6,90	8,00	7,10	4400	8300	5,5
M 6	0,5 – 3,0	14,50	8,90	10,00	9,10	5000	10500	9,0
M 8	0,5 – 3,0	16,00	10,90	12,00	11,10	6000	15400	16,9



ALTİKÖŞE SOMUN PERÇİN FLANŞLI GENİŞ KAFA

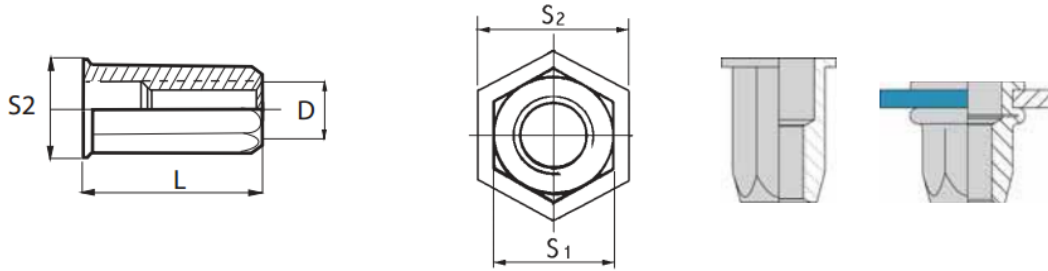
ÇELİK

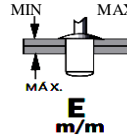

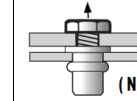
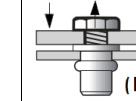
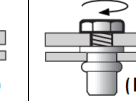


D		L Nominal m/m	S1 Ø m/m	d2 Ø m/m	K m/m				
M 4	0,5 – 2,0	10,00	5,90	9,00	1,00	6,10	3400	7900	4,8
M 5	0,5 – 3,0	13,00	6,90	10,00	1,00	7,10	4900	9800	6,5
M 6	0,5 – 3,0	14,20	8,90	13,00	1,50	9,10	7100	22000	21,4
M 8	0,5 – 3,0 3,0 – 5,5	16,50 19,50	10,90	16,00	1,50	11,10	9600	29800	40,0
M 10	0,5 – 3,5	19,50	12,90	19,00	2,00	13,10	12600	43300	88,0
M 12	1,0 – 4,0	25,00	16,00	23,00	2,00	16,10	17200	>57800	115,0

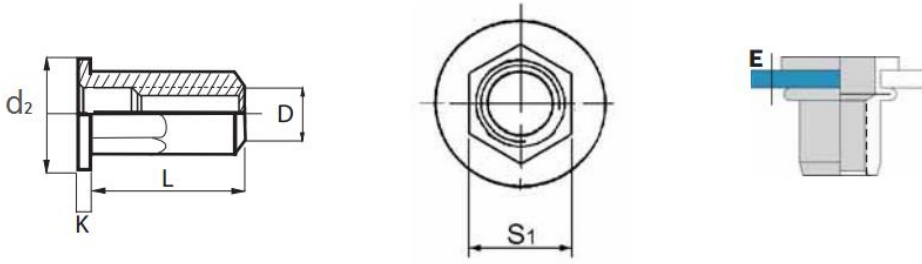
ALTİKÖŞE SOMUN PERÇİN SIFIR KAFA


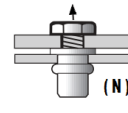
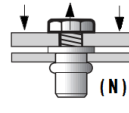
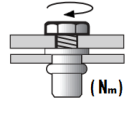
ÇELİK



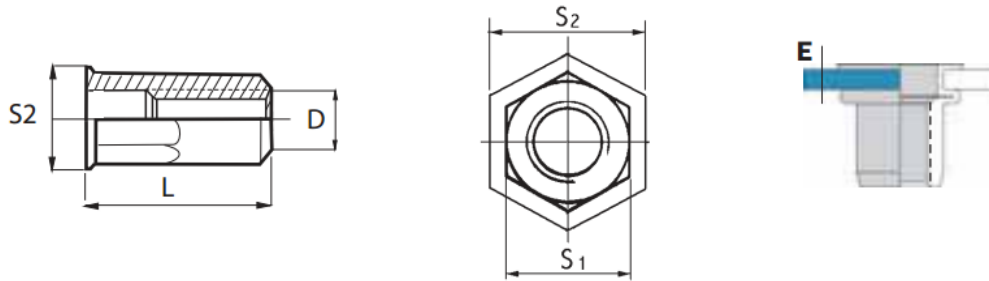
D		L Nominal m/m	S1 Ø m/m	S2 Ø m/m				
M 4	0,5 – 2,0	11,00	5,90	6,60	6,10	3400	7900	4,1
M 5	0,5 – 3,0	14,00	6,90	8,00	7,10	4900	9800	8,0
M 6	0,5 – 3,0	16,00	8,90	9,80	9,10	7500	19100	12,0
M 8	0,5 – 3,0 3,0 – 5,5	18,00 20,50	10,90	11,80	11,10	9600	29800	38,0
M 10	0,5 – 3,5 3,5 – 6,0	22,00 24,00	12,90	14,00	13,10	12600	43300	70,0
M 12	1,0 – 4,0	25,00	16,00	17,50	16,10	17200	>57800	98,0


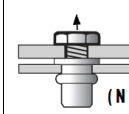
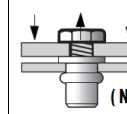
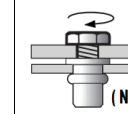
YARIM - ALTİKÖŞE SOMUN PERÇİN FLANŞLI GENİŞ KAFA ÇELİK



D	MIN MAX E m/m	L Nominal m/m	S1 Ø m/m	d2 Ø m/m	K m/m		 (N)	 (N)	 (Nm)
M 4	0,5 – 2,0	9,70	5,90	9,00	1,00	6,10	3400	7900	3,3
M 5	0,5 – 3,0	12,80	6,90	10,00	1,00	7,10	4900	9800	6,2
M 6	0,5 – 3,0	14,50	8,90	13,00	1,50	9,10	7100	19100	14,7
M 8	0,5 – 3,0	16,50	10,90	16,00	1,50	11,10	7500	19300	20,0
M 12	1,0 – 4,0	25,00	15,90	23,00	2,00	16,10	17200	44000	115,0

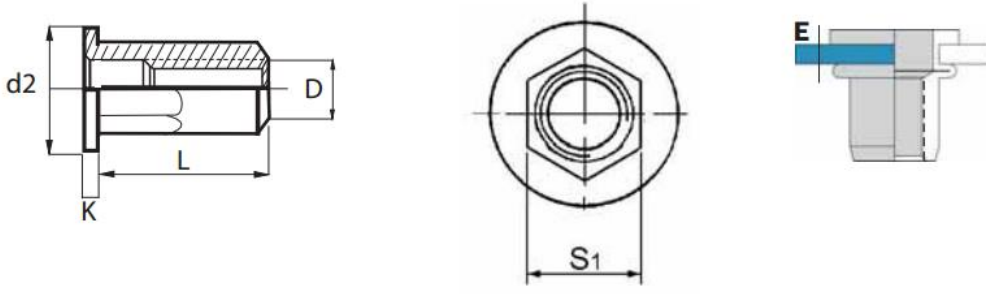
YARIM - ALTİKÖŞE SOMUN PERÇİN SIFIR KAFA ÇELİK

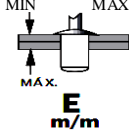

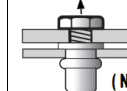
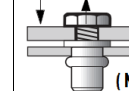
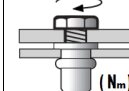


D	MIN MAX E m/m	L Nominal m/m	S1 Ø m/m	S2 Ø m/m		 (N)	 (N)	 (Nm)
M 4	0,5 – 2,5	10,50	6,30	7,00	6,40	2800	7900	4,6
M 5	0,5 – 3,0	12,00	7,10	8,00	7,20	3600	9800	6,2
M 6	0,7 – 3,0	14,50	9,50	10,60	9,60	4700	19100	19,0
M 8	0,8 – 3,0	16,00	10,50	11,50	10,60	5500	29800	34,0

YARIM - ALTİKÖŞE SOMUN PERÇİN FLANŞLI GENİŞ KAFA

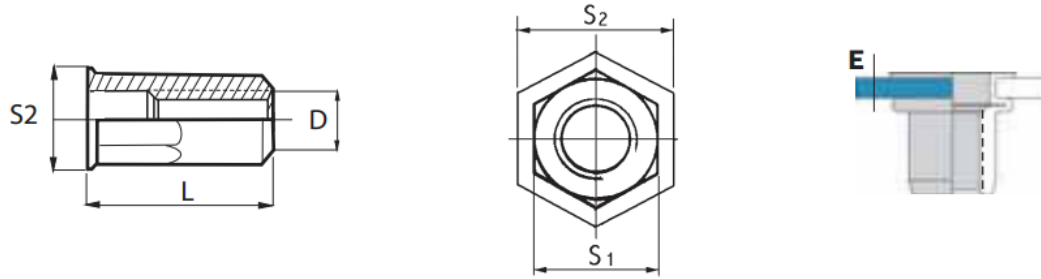
PASLANMAZ

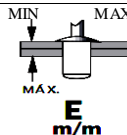

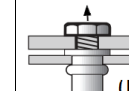
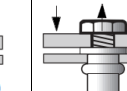
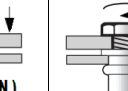


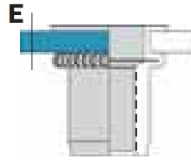
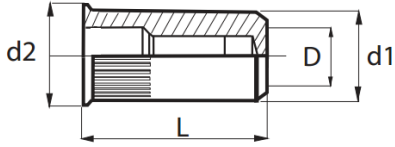
D	 E m/m	L Nominal m/m	S1 Ø m/m	d2 Ø m/m	K m/m		 (N)	 (N)	 (Nm)
M 5	0,5 – 3,0	12,00	6,90	10,00	1,50	7,10	3300	13200	9,1
M 6	0,5 – 3,0	14,00	8,90	12,00	1,50	9,10	7700	21600	19,7
M 8	0,5 – 3,0	16,00	10,90	15,00	1,50	11,10	11200	36300	26,5

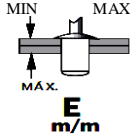

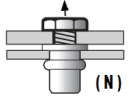
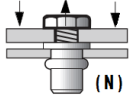
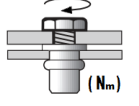
YARIM - ALTİKÖŞE SOMUN PERÇİN SIFIR KAFA

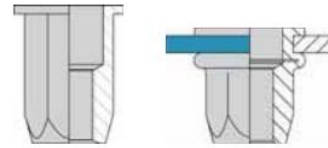
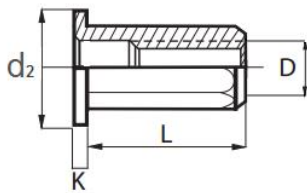
PASLANMAZ

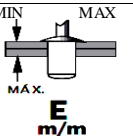

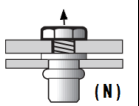
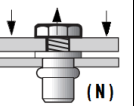
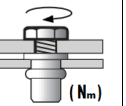


D	 E m/m	L Nominal m/m	S1 Ø m/m	S2 Ø m/m		 (N)	 (N)	 (Nm)
M 4	0,5 – 2,5	11,00	5,90	7,00	6,00	5600	10000	4,9
M 5	0,5 – 3,0	12,00	6,90	8,00	7,00	7200	15800	8,8
M 6	0,5 – 3,0	14,00	8,90	10,00	9,00	9600	18000	14,0
M 8	0,5 – 3,0	16,00	10,90	12,00	11,00	11200	36300	26,5
M 10	1,0 – 3,5	19,00	12,90	14,20	13,00	11400	47800	91,6

SIZDIRMAZ SİLİNDİR SOMUN PERÇİN SIFIR KAFA**ÇELİK**

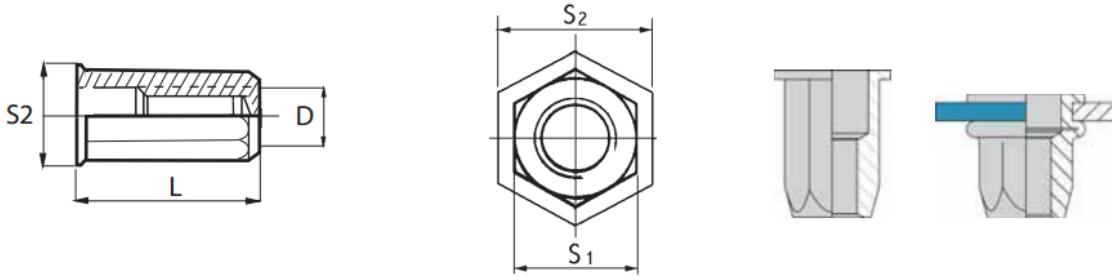
D	 MIN MAX E m/m	L Nominal m/m	d1 Ø m/m	d2 Ø m/m	 m/m			
M 4	0,5 – 2,0	14,90	5,90	7,00	6,10	3000	7000	2,9
M 5	0,5 – 3,0	81,00	6,90	8,00	7,10	5800	9800	6,0
M 6	0,5 – 3,0	21,50	8,90	9,90	9,10	7100	19100	10,5
M 8	0,5 – 3,0	22,50	10,90	12,00	11,10	8400	30000	15,5

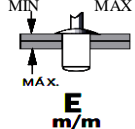

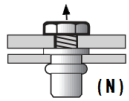
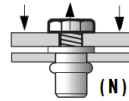
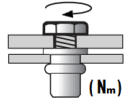
SIZDIRMAZ ALTİKÖŞE SOMUN PERÇİN FLANŞLI GENİŞ KAFA**ÇELİK**

D	 MIN MAX E m/m	L Nominal m/m	S1 Ø m/m	d2 Ø m/m	K m/m	 m/m			
M 5	0,5 – 3,0	20,00	6,95	10,00	1,10	7,10	4900	9800	6,8
M 6	0,5 – 3,0	21,50	8,95	13,00	1,50	9,10	7100	19100	22,0
M 10	1,0 – 3,5	31,00	12,95	19,00	2,00	13,10	12600	43000	70,0

SIZDIRMAZ ALTIKÖŞE SOMUN PERÇİN SIFIR KAFA

ÇELİK

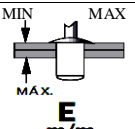



D		L Nominal m/m	S1 Ø m/m	S2 Ø m/m				
M 5	0,5 – 2,0	20,00	8,00	7,90	7,10	4900	9800	8,0
M 6	0,5 – 3,0	22,00	8,95	10,00	9,10	7100	19100	12,0

SAPLAMALI SİLİNDİR SOMUN PERÇİN FLANŞLI GENİŞ KAFA

ÇELİK



D		L Nominal m/m	d1 Ø m/m	d2 Ø m/m	K m/m	LE m/m		m/m
M 5	0,5 – 3,0	11,00	6,95	10,00	1,00	15,00	7,10	
M 6	0,5 – 3,0 0,5 – 3,0 0,5 – 3,0	13,00	8,95	13,00	1,00	15,00 20,00 25,00	9,10	
M 8	0,5 – 3,0 0,5 – 3,0	16,00	10,95	16,00	1,50	20,00 25,00	11,10	

PERÇİN TABANICALARI

HİDROPNÖMATİK SOMUN PERÇİN MAKİNELERİ

F10



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ÇELİK : M3 - M10
YÜKSEKLİK :	ALÜMİNYUM : M3 - M10
AĞIRLIK : 2,2 KG	PASLANMAZ ÇELİK : M3 - M10
ÇALIŞMA BASINCI : 5-7 BAR	

KJ 60



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: 295 mm	ÇELİK: M3 - M8
YÜKSEKLİK: 288 mm	PASLANMAZ ÇELİK: M3 - M8
AĞIRLIK: 2,15 kg	ALUMİNYUM: M3 - M8
ÇALIŞMA BASINCI: 5-7 bar	

KJ 70



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: 350 mm	ÇELİK: M3 - M12
TABANCA AĞIRLIĞI: 2,7KG	PASLANMAZ ÇELİK: M3 - M10
AĞIRLIK: 6,85 kg	ALUMİNYUM: M3 - M12
ÇALIŞMA BASINCI: 5-7 bar	

AİR POWER 4



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 270 mm	ÇELİK : M3 - M12
YÜKSEKLİK : 264 mm	PASLANMAZ ÇELİK : M3 - M8
AĞIRLIK : 1,6 KG	
ÇALIŞMA BASINCI : 5-7 BAR	

KJ 45



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: 296 mm	ÇELİK: M4 - M12
YÜKSEKLİK: 312 mm	PASLANMAZ ÇELİK: M4 - M12
AĞIRLIK: 2,9 kg	ALUMİNYUM: M4 - M12
ÇALIŞMA BASINCI: 5-7 bar	

XGRIP II08 Q1



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 276 mm	ÇELİK : M4 - M10
YÜKSEKLİK : 313 mm	
AĞIRLIK : 2,3 KG	
ÇALIŞMA BASINCI : 5-7 BAR	

MASTERFIX M10



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ÇELİK : M4 - M8
YÜKSEKLİK :	PASLANMAZ ÇELİK : M4 - M8
AĞIRLIK :	
ÇALIŞMA BASINCI : 5-7 BAR	

GESİPA



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ÇELİK : M3 - M10
YÜKSEKLİK :	PASLANMAZ ÇELİK : M3 - M10
ÇALIŞMA BASINCI : 5-7 BAR	

ŞARJLI SOMUN PERÇİN MAKİNELERİ

GESİPA FİREBİRD



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ÇELİK : M3 - M10
YÜKSEKLİK :	PASLANMAZ ÇELİK : M3 - M6
AĞIRLIK : 2,1 kg	ALÜMİNYUM : M3 - M10
ÇALIŞMA BASINCI : 5-7 BAR	

MANUEL SOMUN PERÇİN MAKİNELERİ

EXTRA KJ17



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: 124 mm	ÇELİK: M3 - M6
YÜKSEKLİK: 268 mm	PASLANMAZ ÇELİK: M3 - M6
AĞIRLIK: 0,7 kg	ALUMİNYUM: M3 - M6

EXTRA KJ28



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: -- mm	ÇELİK: M3 - M10
YÜKSEKLİK: 495 mm	PASLANMAZ ÇELİK: M3 - M10
AĞIRLIK: 2,20 kg	ALUMİNYUM: M3 - M10

M306



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ALÜMİNYUM : M3 - M6
YÜKSEKLİK :	
AĞIRLIK :	

EXTRA KJ21



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK: 127 mm	ÇELİK: M3 - M8
YÜKSEKLİK: 350 mm	PASLANMAZ ÇELİK: M3 - M6
AĞIRLIK: 1,25 kg	ALUMİNYUM: M3 - M8

MFX 510 Q1



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 75mm	ALÜMİNYUM : M5 - M10
YÜKSEKLİK : 560mm	ÇELİK : M5 - M10
AĞIRLIK : 2,0 KG	PASLANMAZ ÇELİK : M5 - M10

HİDRO PNOMATİK POP PERÇİN MAKİNELERİ

RAC 210



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 260 mm	ÇELİK: Ø3 - Ø4 mm
YÜKSEKLİK: 278 mm	PASLANMAZ ÇELİK: Ø3 - Ø4 mm
AĞIRLIK: 1,78 kg	ALUMİNYUM: Ø2,4 - Ø4,8 mm
ÇALIŞMA BASINCI: -7 bar	BAKIR: Ø3 - Ø4 mm

RAC 230



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 80 mm	ÇELİK: Ø3 - Ø4,8 mm
YÜKSEKLİK: 443 mm	PASLANMAZ ÇELİK: Ø3 - Ø4,8 mm
AĞIRLIK: 1,66 kg	ALUMİNYUM: Ø2,4 - Ø4,8 mm
ÇALIŞMA BASINCI: 5-7 bar	BAKIR: Ø3 - Ø4,8 mm

RAC 2200



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 305 mm	ÇELİK: Ø3 - Ø4,8 mm
AĞIRLIK: 5,6 kg	PASLANMAZ ÇELİK: Ø3 - Ø4,8 mm
ÇALIŞMA BASINCI: 5-7 bar	ALUMİNYUM: Ø2,4 - Ø6 mm
	BAKIR: Ø3 - Ø4,8 mm

GESİPA TAURUS 3



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 312 mm	ALÜMİNYUM : 2,4 - 6,4
YÜKSEKLİK : 317 mm	ÇELİK : 2,4 - 6,4
AĞIRLIK : 1,9 KG	PASLANMAZ ÇELİK : 2,4 - 5
ÇALIŞMA BASINCI : 5-7 BAR	

RAC 180



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 305 mm	ÇELİK: Ø3 - Ø4,8 mm
YÜKSEKLİK: 302 mm	PASLANMAZ ÇELİK: Ø3 - Ø4,8 mm
AĞIRLIK: 2,05 kg	ALUMİNYUM: Ø2,4 - Ø6 mm
ÇALIŞMA BASINCI: 5-7 bar	BAKIR: Ø3 - Ø4,8 mm

RAC 171



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 325 mm	ÇELİK: Ø4,8 - Ø6,4 mm
YÜKSEKLİK: 340 mm	PASLANMAZ ÇELİK: Ø4,8 - Ø6,4 mm
AĞIRLIK: 2,93 kg	ALUMİNYUM: Ø6 - Ø7,8 mm
ÇALIŞMA BASINCI: 5-7 bar	BAKIR: Ø4,8 - Ø6 mm

GESİPA TAURUS 2



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 278 mm	ALÜMİNYUM : 2,4 - 5,0
YÜKSEKLİK : 291 mm	
AĞIRLIK : 1,6 KG	
ÇALIŞMA BASINCI : 5-7 BAR	

AR 100



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK : 265 mm	ALÜMİNYUM : 2,4 - 5
YÜKSEKLİK : 272 mm	ÇELİK : 2,4 - 5
AĞIRLIK :	PASLANMAZ ÇELİK : 2,4 - 4,8
ÇALIŞMA BASINCI : 5-7 BAR	

AMEX



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ALÜMİNYUM : 2,4 - 5
YÜKSEKLİK :	
AĞIRLIK :	
ÇALIŞMA BASINCI	

VAKUMLU POP PERÇİN



TEKNİK BİLGİLER VE ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ALÜMİNYUM : 2,4 - 5
YÜKSEKLİK :	
AĞIRLIK :	

PNOMATİK POP PERÇİN MAKİNELERİ

RAC 83/95



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 220 mm	ÇELİK: Ø3 - Ø4 mm
YÜKSEKLİK: 200 mm	PASLANMAZ ÇELİK: Ø3 - Ø4 mm
AĞIRLIK: 1,5 kg	ALUMİNYUM: Ø2,4 - Ø4,8 mm
ÇALIŞMA BASINCI: 5-7 bar	BAKIR: Ø3 - Ø4 mm

RAC 83 AX



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 220 mm	ÇELİK: Ø3 - Ø4 mm
YÜKSEKLİK: 200 mm	PASLANMAZ ÇELİK: Ø3 - Ø4 mm
AĞIRLIK: 1,75 kg	ALUMİNYUM: Ø2,4 - Ø4,8 mm
ÇALIŞMA BASINCI: 5-7 bar	BAKIR: Ø3 - Ø4 mm

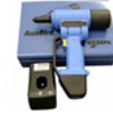
ŞARJLI POP PERÇİN MAKİNELERİ

EB 300



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN POP PERÇİNLER
UZUNLUK: 235 mm	ÇELİK: Ø3 - Ø4,8 mm
YÜKSEKLİK: 235 mm	PASLANMAZ ÇELİK: Ø3 - Ø4,8 mm
AĞIRLIK: 2,6 kg	ALUMİNYUM: Ø2,4 - Ø6 mm
	BAKIR: Ø3 - Ø4,8 mm

GESİPA ACCU BİRD



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ALUMİNYUM : 2,4 - 5
YÜKSEKLİK :	
AĞIRLIK : 2,2 kg	

GESİPA POWER BİRD



TEKNİK BİLGİLER ve ÖLÇÜLER	KULLANILAN SOMUN PERÇİNLER
UZUNLUK :	ALUMİNYUM : 2,4 - 6,4
YÜKSEKLİK :	
AĞIRLIK :	

ETKİN

TEKNİK

MANUEL POP PERÇİN MAKİNELERİ

K 39






K 14



K 20/95



KAYNAK SAPLAMALARI

 BAKIR KAPLI ÇELİK	 PASLANMAZ	 ALÜMİNYUM
M3 X 06	M3 X 06	M3 X 06
M3 X 08	M3 X 08	M3 X 08
M3 X 10	M3 X 10	M3 X 10
M3 X 12	M3 X 12	M3 X 12
M3 X 16	M3 X 16	M3 X 15
M3 X 20	M3 X 20	M3 X 20
M3 X 25	M3 X 25	M3 X 25
M3 X 30	M3 X 30	M3 X 30
M4 X 06	M4 X 06	M4 X 06
M4 X 08	M4 X 08	M4 X 08
M4 X 10	M4 X 10	M4 X 10
M4 X 12	M4 X 12	M4 X 12
M4 X 16	M4 X 16	M4 X 16
M4 X 20	M4 X 20	M4 X 20
M4 X 25	M4 X 25	M4 X 25
M4 X 30	M4 X 30	M4 X 30
M5 X 08	M5 X 08	M5 X 08
M5 X 10	M5 X 10	M5 X 10
M5 X 12	M5 X 12	M5 X 12
M5 X 16	M5 X 16	M5 X 15
M5 X 20	M5 X 20	M5 X 16
M5 X 25	M5 X 25	M5 X 20
M5 X 30	M5 X 30	M5 X 25
M6 X 08	M6 X 08	M6 X 10
M6 X 10	M6 X 10	M6 X 12
M6 X 12	M6 X 12	M6 X 15
M6 X 16	M6 X 16	M6 X 20
M6 X 20	M6 X 20	M6 X 25
M6 X 25	M6 X 25	M6 X 30
M6 X 30	M6 X 30	
M8 X 10	M8 X 10	
M8 X 12	M8 X 12	
M8 X 16	M8 X 16	
M8 X 20	M8 X 20	
M8 X 25	M8 X 25	
M8 X 30	M8 X 30	

SAPLAMA KAYNAK MAKİNELERİ



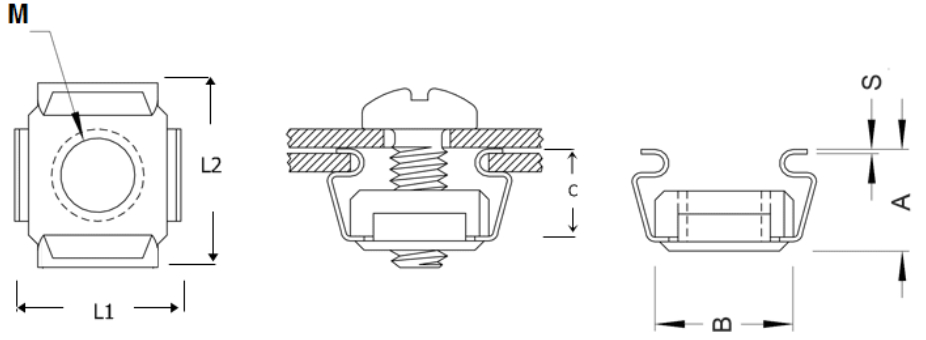
KAPASİTE	:	66.000 μF
KAYNAK ARALIĞI	:	M3-M8
ŞARJ ARALIĞI	:	50-200 V
KAYNAK HIZI	:	MAX.25 SAPL./ DK
BESLEME GERİLİMİ	:	230 V – 50 HZ.

KAFES SOMUNLAR



Uygulama noktası üzerinde açılan kare şeklindeki deliklere tutturulmak suretiyle kullanılan bu bağlantı elemanları

kolay ve pratik olarak monte edilirler. Endüstride birçok uygulama noktası bulunmaktadır.



ÖLÇÜ (M)	SOMUN ÖLÇÜLERİ	SAC KALINLIĞI	EBAT (L1 X L2)	A	S	B	C				
M4	11 X 11 X 4,5	0,7 – 1,6	9,5 X 9,5	8,8	0,40	13,5	6				
		1,7 – 2,6		9,5							
		2,7 – 3,5		10,2							
M5		11 X 11 X 4,5		0,7 – 1,6	9,5 X 9,5	8,8	0,40	13,5	6		
				1,7 – 2,6		9,5					
				2,7 – 3,5		10,2					
M6				11 X 11 X 4,5		0,7 – 1,6	9,5 X 9,5	8,8	0,40	13,5	6
						1,7 – 2,6		9,5			
						2,7 – 3,5		10,2			
M8	14 X 14 X 6		0,7 – 1,6			12,3 X 12,3		10,4	0,50	16,6	7,8
			1,7 – 2,6					12,0			
			2,7 – 3,5					13,5			
		3,5 – 4,7	14,5								
M10		14 X 14 X 6	1,0 – 1,7		12,3 X 12,3			10,4	0,50	16,6	7,8
			1,8 – 3,2					12,0			
			3,3 – 4,7	13,5							
			4,8 – 5,5	14,5							

PRESLİ BAĞLANTI ELEMANLARI



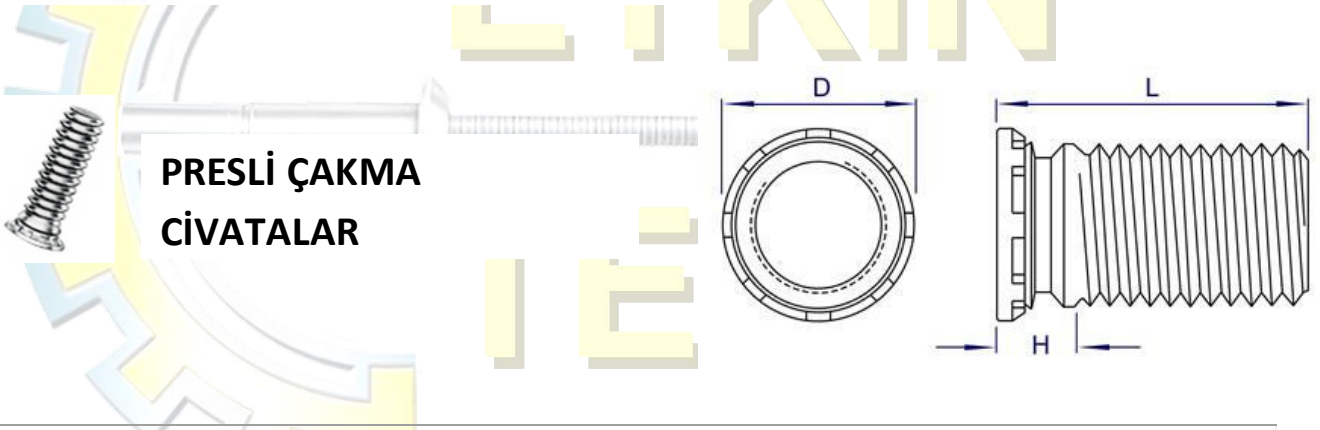
PRESLİ ÇAKMA CİVATALAR



PRESLİ ÇAKMA SOMUNLAR



PRESLİ ÇAKMA YÜKSELTEÇLER

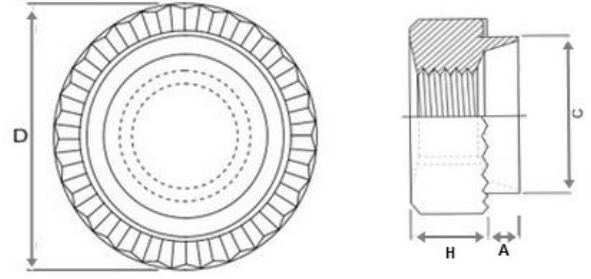


PRESLİ ÇAKMA CİVATALAR

ÖLÇÜ & VİDA ADIMI	BOY (L)										SAC KALINLIĞI	D	H (MAX)	DELİK BOYUTU	PANEL KENARI
	6	8	10	12	15	18	20	25	30	35					
M2,5 X 0,45	6	8	10	12	15	18					1,00	4,10	1,95	2,5	5,4
M3 X 0,50	6	8	10	12	15	18	20	25			1,00	4,60	2,10	3,0	5,6
M3,5 X 0,60	6	8	10	12	15	18	20	25	30		1,00	5,30	2,25	3,5	6,4
M4 X 0,70	6	8	10	12	15	18	20	25	30	35	1,00	5,90	2,40	4,0	7,2
M5 X 0,80		8	10	12	15	18	20	25	30	35	1,00	6,50	2,70	5,0	7,2
M6 X 1,00			10	12	15	18	20	25	30	35	1,60	8,20	3,00	6,0	7,9
M8 X 1,50				12	15	18	20	25	30	35	2,40	9,60	3,70	8,0	9,0



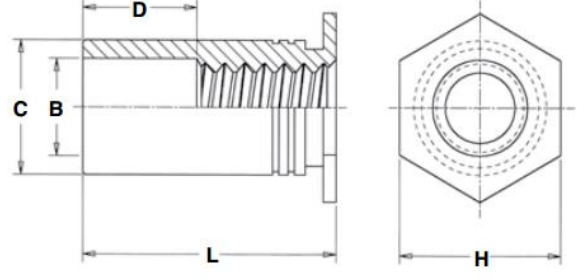
PRESLİ ÇAKMA SOMUNLAR



ÖLÇÜ & VİDA ADIMI	KOD	SAC KALINLIĞI (min)	A	D (±0,25)	H (±0,25)	C (max)	DELİK BOYUTU
M2,5 X 0,40	0	0,80 – 1,00	0,77	6,30	1,50	4,22	4,25
	1	1,00	0,96				
	2	1,40	1,36				
M2 X 0,45	0	0,80 – 1,00	0,77	6,30	1,50	4,22	4,25
	1	1,00	0,96				
	2	1,40	1,36				
M3 X 0,50	0	0,80 – 1,00	0,77	6,30	1,50	4,22	4,25
	1	1,00	0,96				
	2	1,40	1,36				
M3,5 X 0,60	0	0,80 – 1,00	0,77	7,10	1,50	4,73	4,75
	1	1,00	0,96				
	2	1,40	1,36				
M4 X 0,70	0	0,80 – 1,00	0,77	7,90	2,00	5,38	5,40
	1	1,00	0,96				
	2	1,40	1,36				
M5 X 0,80	0	0,80 – 1,00	0,77	8,70	2,00	6,38	6,40
	1	1,00	0,96				
	2	1,40	1,36				
M6 X 1,00	0	1,20	1,15	11,00	4,08	8,72	8,75
	1	1,40	1,38				
	2	2,30	2,21				
M8 X 1,50	1	1,40	1,36	12,50	5,45	10,47	10,50
	2	2,30	2,22				
M10 X 1,50	1	2,30	2,22	17,25	7,50	13,95	14,00
	2	3,20	3,00				



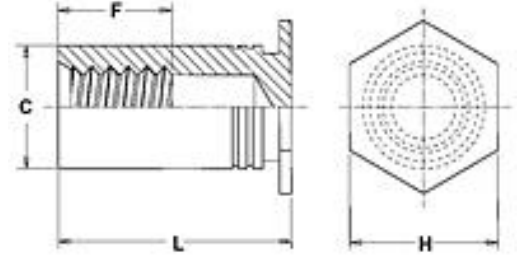
PRESLİ ÇAKMA YÜKSELTEÇLER (AÇIK TİP)



ÖLÇÜ & VİDA ADIMI	KOD	BOY (L)			SAC KALINLIĞI (min)	C (-0,13)	B (±0,13)	H	DELİK BOYUTU	
M3 X 0,50	M3	10	16		1,00	4,19	3,20	4,80	4,20	
		12	18							
	35M3	14			1,00	5,38	3,20	6,40	5,40	
M3,5 X 0,60	M3,5	4	10	16						
		6	12	18	22	1,00	5,38	3,90	6,40	5,40
		8	14	20	25					
M4 X 0,70	M4	4	10	16						
		6	12	18	22	1,30	7,10	4,80	7,90	7,20
		8	14	20	25					
M5 X 0,80	M5	4	10	16						
		6	12	18	22	1,30	7,10	5,35	7,90	7,20
		8	14	20	25					
D (±0,25)		4	8	11						



PRESLİ ÇAKMA YÜKSELTEÇLER (KAPALI TİP)



ÖLÇÜ & VİDA ADIMI	KOD	BOY (L)					SAC KALINLIĞI (min)	C (-0,13)	H	DELİK BOYUTU
		6	8	10	11	14				
M3, X 0,5	M3						1,00	4,19	4,80	4,20
	35M3						1,00	5,38	6,40	5,40
M3,5 X 0,60	M3,5						1,00	5,38	6,40	5,40
M4 X 0,70	M4						1,30	7,10	7,90	7,20
M5 X 0,80	M5						1,30	7,10	7,90	7,20
F (min)		3,2	4	5	6,5	9,5				