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YAPRAK MATKABI (SPADE DRILL)

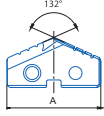
2026



SÜPER HSS YAPRAK MATKABI (SPADE DRILL)

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SÜPER HSS	9,5-12,7mm	132°	↻		
P Çelik Yapılar Çelik Alaşımlı Çelik Takım Çeliği	M Paslanmaz Çelik	K Döküm Bicimlendirilebilir Dökme Demir	N Alüminyum Alaşım Döküm Alüminyum Alaşımlar Bakır Alaşımlar	S Süper Alaşımlar Titanyum Alaşımlar	H Sertleştirilmiş Çelik Hardox 400 Hardox 500

Yüksek Performans için
HPC Geometrisi

XX

Kod XX	Çap A mm	Tutucu	Kalınlık B mm	X Fiyat EURO
LNK-Y-00950XX	9,5mm	Y0	2,38	*
LNK-Y-01000XX	10,0mm	Y0	2,38	*
LNK-Y-01020XX	10,2mm	Y0	2,38	*
LNK-Y-01050XX	10,5mm	Y0	2,38	*
LNK-Y-01100XX	11,0mm	Y0	2,38	*
LNK-Y-01150XX	11,5mm	Y0	2,38	*
LNK-Y-01200XX	12,0mm	Y0	2,38	*
LNK-Y-01250XX	12,5mm	Y0	2,38	*
LNK-Y-01270XX	12,7mm	Y0	2,38	*

UYGULANABİLİR İŞLENMİŞ MALZEME TABLOSU

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İSD	P	P	P	P	M	K	K	N	N	N	S	S	H	H
İŞ PARÇASI MALZEMESİ	ÇELİK	ÇELİK	ALAŞIMLI ÇELİK	TAKIM ÇELİĞİ	PASLANMAZ ÇELİK	DÖKÜM	İÇLENKİLİRLİ DÖKME DEMİR	ALÜMİNYUM ALAŞIMI	DÖKÜM ALÜMİNYUM ALAŞIMLARI	BAKIR ALAŞIMLARI	SÜPER ALAŞIMLAR	TİTANYUM ALAŞIMLARI	SERTLEŞTİRİLMİŞ ÇELİK	HARDOX 400 HARDOX 500
XX	~500N	~750N	~1400N	~1100N	~900N	~750N	~1100N	SI~12%	SI~12%	~750N	~1100N	~1100N	~1400N	~1600N

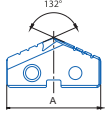
SÜPER HSS YAPRAK MATKABI (SPADE DRILL)

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MATKAP

SÜPER HSS	13,0-114,0 mm	132°			
P	M	K	N	S	H
Çelik Yapılar Çelik Alaşımı Çelik Takım Çeligi	Paslanmaz Çelik	Döküm Bilemlendirilebilir Dökme Demir	Alüminyum Alaşım Döküm Alüminyum Alaşım Bakır Alaşım	Süper Alaşım Titanyum Alaşım	Sertleştirilmiş Çelik Hardox 400 Hardox 500

Yüksek Performans için HPC Geometrisi



TiN



X

Kod TiN	Kod X	Çap A mm	Tutucu	Kalınlık B mm	TiN Fiyat EURO	X Fiyat EURO
	LNX-0-01300X	13,0mm	00	3,18	*	*
	LNX-0-01350X	13,5mm	00	3,18	*	*
	LNX-0-01400X	14,0mm	00	3,18	*	*
	LNX-0-01420X	14,2mm	00	3,18	*	*
	LNX-0-01450X	14,5mm	00	3,18	*	*
	LNX-0-01500X	15,0mm	00	3,18	*	*
	LNX-0-01520X	15,2mm	00	3,18	*	*
	LNX-0-01550X	15,5mm	00	3,18	*	*
	LNX-0-01580X	15,8mm	00	3,18	*	*
	LNX-0-01600X	16,0mm	00	3,18	*	*
	LNX-0-01620X	16,2mm	00	3,18	*	*
	LNX-0-01650X	16,5mm	00	3,18	*	*
	LNX-0-01680X	16,8mm	00	3,18	*	*
	LNX-0-01700X	17,0mm	00	3,18	*	*
	LNX-0-01750X	17,5mm	00	3,18	*	*
LNX-1-01800T	LNX-1-01800X	18,0mm	10	3,97	*	*
	LNX-1-01850X	18,5mm	10	3,97	*	*
LNX-1-01900T	LNX-1-01900X	19,0mm	10	3,97	*	*
	LNX-1-01950X	19,5mm	10	3,97	*	*
LNX-1-02000T	LNX-1-02000X	20,0mm	10	3,97	*	*
	LNX-1-02050X	20,5mm	10	3,97	*	*
LNX-1-02100T	LNX-1-02100X	21,0mm	10	3,97	*	*
	LNX-1-02150X	21,5mm	10	3,97	*	*
LNX-1-02200T	LNX-1-02200X	22,0mm	10	3,97	*	*
	LNX-1-02250X	22,5mm	10	3,97	*	*
LNX-1-02300T	LNX-1-02300X	23,0mm	10	3,97	*	*
	LNX-1-02350X	23,5mm	10	3,97	*	*
LNX-1-02400T	LNX-1-02400X	24,0mm	10	3,97	*	*
	LNX-1-02450X	24,5mm	10	3,97	*	*
LNX-2-02500T	LNX-2-02500X	25,0mm	20	4,76	*	*
	LNX-2-02540X	25,4mm	20	4,76	*	*
	LNX-2-02550X	25,5mm	20	4,76	*	*
LNX-2-02600T	LNX-2-02600X	26,0mm	20	4,76	*	*
	LNX-2-02650X	26,5mm	20	4,76	*	*
LNX-2-02700T	LNX-2-02700X	27,0mm	20	4,76	*	*
	LNX-2-02750X	27,5mm	20	4,76	*	*
LNX-2-02800T	LNX-2-02800X	28,0mm	20	4,76	*	*
	LNX-2-02850X	28,5mm	20	4,76	*	*
LNX-2-02900T	LNX-2-02900X	29,0mm	20	4,76	*	*
	LNX-2-02950X	29,5mm	20	4,76	*	*

UYGULANABİLİR İŞLENİŞ MALZEME TABLOSU

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İSO	P	P	P	M	K	K	N	N	N	S	S	H	H
İŞ PARÇASI MALZEMESİ	ÇELİK	ÇELİK	ALAŞIMLI ÇELİK	PASLANMAZ ÇELİK	DÖKÜM	İSLENİRLİLİR DÖKME DEMİR	ALÜMİNYUM ALAŞIM	DÖKÜM ALÜMİNYUM ALAŞIM	BAKIR ALAŞIM	SÜPER ALAŞIM	TİTANYUM ALAŞIM	SERTLESTİRLİŞ ÇELİK	HARDOX 400 HARDOX 500
X	<500N	<750N	<1400N	<1100N	<900N	<750N	SI-12%	SI-12%	<750N	<1100N	<1100N	<1400N	<1600N

SÜPER HSS YAPRAK MATKABI (SPADE DRILL)

Kod TİN	Kod X	Çap A mm	Tutucu	Kalınlık B mm	TİN Fiyat EURO	X Fiyat EURO
LNX-2-03000T	LNX-2-03000X	30,0mm	20	4,76	*	*
LNX-2-03100T	LNX-2-03100X	31,0mm	20	4,76	*	*
LNX-2-03200T	LNX-2-03200X	32,5mm	20	4,76	*	*
LNX-2-03300T	LNX-2-03300X	33,0mm	20	4,76	*	*
LNX-2-03400T	LNX-2-03400X	34,0mm	20	4,76	*	*
LNX-2-03500T	LNX-2-03500X	35,0mm	20	4,76	*	*
LNX-3-03600T	LNX-3-03600X	36,0mm	30	6,35	*	*
LNX-3-03700T	LNX-3-03700X	37,0mm	30	6,35	*	*
LNX-3-03800T	LNX-3-03800X	38,0mm	30	6,35	*	*
LNX-3-03900T	LNX-3-03900X	39,0mm	30	6,35	*	*
LNX-3-04000T	LNX-3-04000X	40,0mm	30	6,35	*	*
LNX-3-04100T	LNX-3-04100X	41,0mm	30	6,35	*	*
LNX-3-04200T	LNX-3-04200X	42,0mm	30	6,35	*	*
LNX-3-04300T	LNX-3-04300X	43,0mm	30	6,35	*	*
LNX-3-04400T	LNX-3-04400X	44,0mm	30	6,35	*	*
LNX-3-04500T	LNX-3-04500X	45,0mm	30	6,35	*	*
LNX-3-04600T	LNX-3-04600X	46,0mm	30	6,35	*	*
LNX-3-04700T	LNX-3-04700X	47,0mm	30	6,35	*	*
LNX-4-04800T	LNX-4-04800X	48,0mm	40	7,94	*	*
LNX-4-04900T	LNX-4-04900X	49,0mm	40	7,94	*	*
LNX-4-05000T	LNX-4-05000X	50,0mm	40	7,94	*	*
	LNX-4-05080X	50,8mm	40	7,94	*	*
LNX-4-05100T	LNX-4-05100X	51,0mm	40	7,94	*	*
LNX-4-05200T	LNX-4-05200X	52,0mm	40	7,94	*	*
LNX-4-05300T	LNX-4-05300X	53,0mm	40	7,94	*	*
LNX-4-05400T	LNX-4-05400X	54,0mm	40	7,94	*	*
LNX-4-05500T	LNX-4-05500X	55,0mm	40	7,94	*	*
LNX-4-05600T	LNX-4-05600X	56,0mm	40	7,94	*	*
LNX-4-05700T	LNX-4-05700X	57,0mm	40	7,94	*	*
LNX-4-05800T	LNX-4-05800X	58,0mm	40	7,94	*	*
LNX-4-05900T	LNX-4-05900X	59,0mm	40	7,94	*	*
LNX-4-06000T	LNX-4-06000X	60,0mm	40	7,94	*	*
LNX-4-06100T	LNX-4-06100X	61,0mm	40	7,94	*	*
LNX-4-06200T	LNX-4-06200X	62,0mm	40	7,94	*	*
LNX-4-06300T	LNX-4-06300X	63,0mm	40	7,94	*	*
LNX-4-06400T	LNX-4-06400X	64,0mm	40	7,94	*	*
LNX-4-06500T	LNX-4-06500X	65,0mm	40	7,94	*	*
LNX-5-06400T	LNX-5-06400X	64,0mm	50	11,10	*	*
LNX-5-06600T	LNX-5-06600X	66,0mm	50	11,10	*	*
LNX-5-06800T	LNX-5-06800X	68,0mm	50	11,10	*	*
LNX-5-07000T	LNX-5-07000X	70,0mm	50	11,10	*	*
LNX-5-07200T	LNX-5-07200X	72,0mm	50	11,10	*	*
LNX-5-07400T	LNX-5-07400X	74,0mm	50	11,10	*	*
LNX-5-07600T	LNX-5-07600X	76,0mm	50	11,10	*	*
LNX-6-07800T	LNX-6-07800X	78,0mm	60	11,10	*	*
LNX-6-08000T	LNX-6-08000X	80,0mm	60	11,10	*	*

UYGULANABİLİR İŞLENMİŞ MALZEME TABLOSU

ISO	P	P	P	P	M	K	S	N	N	S	S	H	H		
İS PARÇASI MALZEMESİ	CELİK	CELİK	ALÜMİNYUM CELİK	TAYINLI CELİK	PASLANMAZ CELİK	DÖKÜM	SİLİNDİRİN DÖKÜME DÖNER	ALÜMİNYUM ALUSILAR	DÖKÜM ALÜMİNYUM ALUSILAR	BAĞIRI ALUSILAR	SÜPER ALUSILAR	TITANYUM ALUSILAR	SERTLEŞTİRİLMİŞ CELİK	NİKLİM HARDOK İ00	HARDOK İ90
X	-800N	-750N	-1400N	-1100N	-900N	-750N	<1100N	SI-12%	SI-12%	-750N	<1100N	<1100N	<1400N	<1600N	<1600N

SÜPER HSS YAPRAK MATKABI (SPADE DRILL)

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MATKAP

Kod TiN	Kod X	Çap A mm	Tutucu	Kalınlık B mm	TiN Fiyat EURO	X Fiyat EURO
LNX-6-08200T	LNX-6-08200X	82,0mm	60	11,10	*	*
LNX-6-08400T	LNX-6-08400X	84,0mm	60	11,10	*	*
LNX-6-08600T	LNX-6-08600X	86,0mm	60	11,10	*	*
LNX-6-08800T	LNX-6-08800X	88,0mm	60	11,10	*	*
LNX-7-09000T	LNX-7-09000X	90,0mm	70	11,10	*	*
LNX-7-09200T	LNX-7-09200X	92,0mm	70	11,10	*	*
LNX-7-09400T	LNX-7-09400X	94,0mm	70	11,10	*	*
LNX-7-09600T	LNX-7-09600X	96,0mm	70	11,10	*	*
LNX-7-09800T	LNX-7-09800X	98,0mm	70	11,10	*	*
LNX-7-10000T	LNX-7-10000X	100,0mm	70	11,10	*	*
LNX-8-10400T	LNX-8-10400X	104,0mm	80	11,10	*	*
LNX-8-10600T	LNX-8-10600X	106,0mm	80	11,10	*	*
LNX-8-10800T	LNX-8-10800X	108,0mm	80	11,10	*	*
LNX-8-11000T	LNX-8-11000X	110,0mm	80	11,10	*	*
LNX-8-11200T	LNX-8-11200X	112,0mm	80	11,10	*	*
LNX-8-11400T	LNX-8-11400X	114,0mm	80	11,10	*	*



UYGULANABİLİR İŞLENMİŞ MALZEME TABLOSU

ISO	P	P	P	P	M	K	K	N	N	N	S	S	T	H	H	
İŞ PARÇASI MALZEMESİ	ÇELİK	ÇELİK	ALAŞIMLI ÇELİK	TAKIM ÇELİĞİ	PASLANMAZ ÇELİK	DÖKÜM	İSLENİMLİ DÖKÜM DEMİR	ALUMİNYUM ÇELİK	DÖKÜM ALUMİNYUM ALAŞIMLARI	Sİ-12%	Sİ-12%	SİNER ALAŞIMLARI	SÜPER ALAŞIMLAR	TİTANYUM ALAŞIMLARI	SERİLEŞTİRİLMİŞ ÇELİK	HARDOX 400 HARDOX 500
x	~500N	~750N	~1400N	~1100N	~900N	~750N	~1100N	Si-12%	Si-12%			~750N	~1100N	~1100N	~1400N	~1600N

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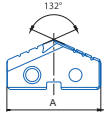
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KARBÜR YAPRAK MATKABI (SPADE DRILL)



KARBÜR	9,5-35,0 mm	 132°			
P	M	K	N	S	H
Çelik Yapıçr Çelik Aşarmlı Çelik Takum Çeligi	Paşlanmaz Çelik	Döküm Bicimlendirilebilir Dökme Demir	Aluminyum Alaşım Döküm Alaşımlar Bakır Alaşımlar	Süper Alaşımlar Titanyum Alaşımlar	Sertleştirilmiş Çelik Hardox 400 Hardox 500

Yüksek Performans için HPC Geometrisi



XC

Kod XC	Çap A mm	Tutucu	Kalınlık B mm	X Fiyat EURO
LNX-Y-00950XC	9,5mm	Y0	2,38	*
LNX-Y-01000XC	10,0mm	Y0	2,38	*
LNX-Y-01020XC	10,2mm	Y0	2,38	*
LNX-Y-01050XC	10,5mm	Y0	2,38	*
LNX-Y-01100XC	11,0mm	Y0	2,38	*
LNX-Y-01150XC	11,5mm	Y0	2,38	*
LNX-Y-01200XC	12,0mm	Y0	2,38	*
LNX-Y-01250XC	12,5mm	Y0	2,38	*
LNX-Y-01270XC	12,7mm	Y0	2,38	*
LNX-0-01300XC	13,0mm	00	3,18	*
LNX-0-01350XC	13,5mm	00	3,18	*
LNX-0-01400XC	14,0mm	00	3,18	*
LNX-0-01420XC	14,2mm	00	3,18	*
LNX-0-01450XC	14,5mm	00	3,18	*
LNX-0-01500XC	15,0mm	00	3,18	*
LNX-0-01520XC	15,2mm	00	3,18	*
LNX-0-01550XC	15,5mm	00	3,18	*
LNX-0-01580XC	15,8mm	00	3,18	*
LNX-0-01600XC	16,0mm	00	3,18	*
LNX-0-01620XC	16,2mm	00	3,18	*
LNX-0-01650XC	16,5mm	00	3,18	*
LNX-0-01680XC	16,8mm	00	3,18	*
LNX-0-01700XC	17,0mm	00	3,18	*
LNX-0-01750XC	17,5mm	00	3,18	*
LNX-1-01800XC	18,0mm	10	3,97	*
LNX-1-01850XC	18,5mm	10	3,97	*
LNX-1-01900XC	19,0mm	10	3,97	*
LNX-1-01950XC	19,5mm	10	3,97	*
LNX-1-02000XC	20,0mm	10	3,97	*
LNX-1-02050XC	20,5mm	10	3,97	*
LNX-1-02100XC	21,0mm	10	3,97	*
LNX-1-02150XC	21,5mm	10	3,97	*
LNX-1-02200XC	22,0mm	10	3,97	*
LNX-1-02300XC	23,0mm	10	3,97	*
LNX-1-02400XC	24,0mm	10	3,97	*
LNX-2-02500XC	25,0mm	20	4,76	*
LNX-2-02600XC	26,0mm	20	4,76	*
LNX-2-02700XC	27,0mm	20	4,76	*

UYGULANABİLİR İŞLENMİŞ MALZEME TABLOSU

ISO	F	P	P	P	M	K	K	N	N	N	S	S	T	H
İS PARÇASİ MALZEMESİ KÇ.	ÇELİK ~500K	ÇELİK ~750K	ALÜMİNYUM ~1400K	TAYINÇ ~1100K	PASLANMAZ ~900K	~750K	ÇELİK ~1100K	ALÜMİNYUM SI-12%	ALÜMİNYUM SI-12%	BAĞLI ~750K	SÜPER ~1100K	TITANYUM ~1100K	ERİTİLMİŞ ~1400K	HAKKON 450 HAKKON 500 ~1600K

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KARBÜR YAPRAK MATKABI (SPADE DRILL)

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MATKAP



Kod XX	Çap A mm	Tutucu	Kalınlık B mm	X Fiyat EURO
LNx-2-02800XC	28,0mm	20	4.76	*
LNx-2-02900XC	29,0mm	20	4.76	*
LNx-2-03000XC	30,0mm	20	4.76	*
LNx-2-03100XC	31,0mm	20	4.76	*
LNC-2-03200XC	32,0mm	20	4.76	*
LNx-2-03300XC	33,0mm	20	4.76	*
LNx-2-03400XC	34,0mm	20	4.76	*
LNx-2-03500XC	35,0mm	20	4.76	*

UYGULANABİLİR İŞLENMİŞ MALZEME TABLOSU

İSD	P	P	P	P	M	K	K	N	N	N	S	S	H	H
İŞ PARÇASI MALZEMESİ	ÇELİK	ÇELİK	ALÜMİNYUM ÇELİK	TAVIR ÇELİK	PASLANMAZ ÇELİK	DÖKÜM	İSLENİRLİLİ DÖKÜM DEMİR	ALÜMİNYUM ALAŞIRI	DÖKÜM ALÜMİNYUM ALAŞIRI	BAĞIR ALAŞIRI	SUPER ALAŞIRI	TİTANYUM ALAŞIRI	SERTLESTİRİLMİŞ ÇELİK	HARDOX 400 HARDOX 500
XC	~500N	~750N	~1400N	~1100N	~900N	~750N	~1100N	SI-12%	SI-12%	~750N	~1100N	~1100N	~1400N	~1600N
	*	*	*	*	*	*	*	*	*	*	*	*	*	*

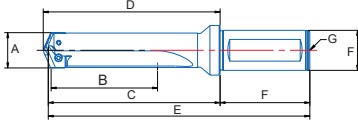
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WELDON ŞAFT DÜZ KANAL TUTUCU

Black
oxide

ISO 9766



20 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk	inc	
00	LNX-00-MK20-20SF	13-17,5	40,0	63,0	66,3	114,0	20	50	R1/8	*
10	LNX-10-MK25-20SF	18-24	77,0	107,2	110,7	163,2	25	56	R1/8	*
20	LNX-20-MK32-20SF	25-35	93,0	128,6	132,2	188,6	32	60	R1/4	*
30	LNX-30-MK40-20SF	36-47	135,0	173,0	177,8	243,0	40	70	R1/4	*

70 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk	inc	
Y0	LNX-Y0-MK20-70SF	9,5-12,5	222,0	252,0	254,0	302,0	20	50	R1/8"	*
00	LNX-00-MK20-70SF	13-17,5	295,0	324,0	327,0	374,0	20	50	R1/8	*
10	LNX-10-MK25-70SF	18-24	460,0	495,0	498,0	551,0	25	56	R1/8	*
20	LNX-20-MK32-70SF	25-35	511,0	554,1	557,7	612,0	32	60	R1/4	*
30	LNX-30-MK40-70SF	36-47	559,0	611,1	615,9	681,2	40	70	R1/4	*
40	LNX-40-MK40-70SF	48-65	625,0	674,7	679,5	744,8	40	70	R1/4	*

90 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk	inc	
Y0	LNX-Y0-MK20-90SF	9,5-12,5	290,0	320,0	322,0	370,0	20	50	R1/8	*
00	LNX-00-MK20-90SF	13-17,5	387,0	416,0	419,0	466,0	20	50	R1/8	*
10	LNX-10-MK25-90SF	18-24	569,0	603,0	606,0	659,0	25	56	R1/8	*
20	LNX-20-MK32-90SF	25-35	692,0	735,0	739,0	795,0	32	60	R1/4	*
30	LNX-30-MK40-90SF	36-47	790,0	840,0	845,0	910,0	40	70	R1/4	*
40	LNX-40-MK40-90SF	48-65	890,0	929,0	934,0	999,0	40	70	R1/4	*

Ürünler İçin Fiyat ve Stok Sorunuz.

Tutucu Vidası İçin Fiyat ve Stok Sorunuz.

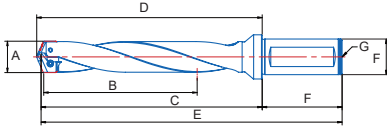
WELDON ŞAFT HELİS KANAL TUTUCU

linix

MATKAP

Black
oxide

ISO 9766



40 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G inc	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk		
10	LNX-10-MK25-40SH	18-24	179,0	205,6	209,2	261,6	25	56	R1/8	*
15	LNX-15-MK25-40SH	22-24	179,0	205,6	209,2	261,6	25	56	R1/8	*
20	LNX-20-MK32-40SH	25-35	200,0	230,2	233,8	290,2	32	60	R1/4	*
30	LNX-30-MK40-40SH	36-47	225,0	261,9	266,7	331,9	40	70	R1/4	*
40	LNX-40-MK40-40SH	48-65	250,0	281,0	285,8	351,0	40	70	R1/4	*

50 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G inc	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk		
Y0	LNX-Y0-MK20-50SH	9,5-12,5	111,0	141,0	143,0	191,0	20	50	R1/8"	*
00	LNX-00-MK20-50SH	13-17,5	120,0	143,0	146,0	193,0	20	50	R1/8	*
10	LNX-10-MK25-50SH	18-24	280,0	307,2	310,8	363,2	25	56	R1/8	*
20	LNX-20-MK32-50SH	25-35	300,0	332,0	335,0	392,0	32	60	R1/4	*
30	LNX-30-MK40-50SH	36-47	365,0	364,0	368,0	434,0	40	70	R1/4	*
40	LNX-40-MK40-50SH	48-65	435,0	484,0	490,0	554,0	40	70	R1/4	*

60 SERİ

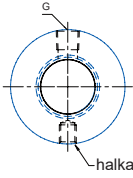
Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	Şaft		G inc	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Çap	Uzun- luk		
00	LNX-00-MK20-60SH	13-17,5	180,0	206,0	209,0	256,0	20	50	R1/8	*
10	LNX-10-MK25-60SH	18-24	370,0	401,0	404,0	457,0	25	56	R1/8	*
20	LNX-20-MK32-60SH	25-35	410,0	443,0	447,0	503,0	32	60	R1/4	*
30	LNX-30-MK40-60SH	36-47	430,0	468,0	473,0	538,0	40	70	R1/4	*
40	LNX-40-MK40-60SH	48-65	545,0	586,0	591,0	656,0	40	70	R1/4	*

Ürünler İçin Fiyat ve Stok Sorunuz.
Tutucu Vidası İçin Fiyat ve Stok Sorunuz.

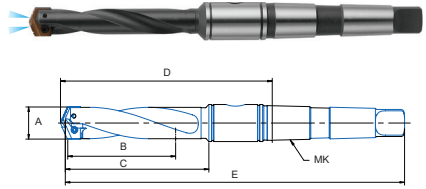
MORSKONİK HELİS KANAL TUTUCU

Black
oxide

(MK)ISO 296



halka sabitleyici girişi Döner Soğutucu Adaptör



40 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	MK	G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Şaft	inc	
00	LNx-00-MK2-40SH	13-17,5	73,0	84,0	121,0	193,0	2	R1/16	*
10	LNx-10-MK3-40SH	18-24	179,0	200,0	244,0	334,0	3	R1/8	*
20	LNx-20-MK4-40SH	25-35	200,0	216,0	262,0	375,0	4	R1/8	*
30	LNx-30-MK4-40SH	36-47	225,0	241,0	295,0	408,0	4	R1/4	*
40	LNx-40-MK5-40SH	48-65	250,0	267,0	321,0	465,0	5	R1/4	*
50	LNx-50-MK5-40SH	66-114	295,0	318,0	389,0	532,0	5	R1/2	*

50 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	MK	G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Şaft	inc	
00	LNx-00-MK2-50SH	13-17,5	114,3	135,0	171,8	243,7	2	R1/16	*
10	LNx-10-MK3-50SH	18-24	273,1	301,6	345,7	435,8	3	R1/8	*
20	LNx-20-MK4-50SH	25-35	289,0	317,5	363,6	477,0	4	R1/8	*
30	LNx-30-MK4-50SH	36-47	349,3	381,0	435,0	547,7	4	R1/4	*
40	LNx-40-MK5-50SH	48-65	422,3	457,2	511,2	655,6	5	R1/4	*
50	LNx-50-MK5-50SH	66-114	463,6	508,0	579,4	722,3	5	R1/2	*

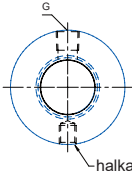
MORSKONİK DÜZ KANAL TUTUCU

Linux

MATKAP

Black
oxide

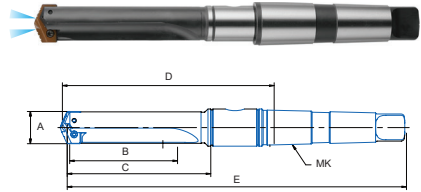
(MK)ISO 296



halka sabitleyici girişi



Döner Soğutucu Adaptör



70 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	MK	G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Şaft	inc	
50	LNx-50-MK5-70SF	66-114	660,0	704,8	776,2	919,1	5	R1/2	*

90 SERİ

Tutucu Bağlayıcı	Tip Kod	A	B	C	D	E	MK	G	Fiyat Listesi Euro
		Matkap Ucu Aralığı	Max Matkap Derinliği	Gövde Uzun- luğu	Ref. Boy	Toplam Boy	Şaft	inc	
50	LNx-50-MK5-90SF	66-114	910,0	933,0	1005,0	1148,0	5	R1/2	*

MORSKONİK VELDON TUTUCU ADAPTÖR

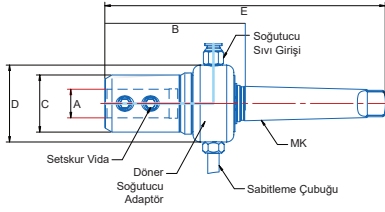
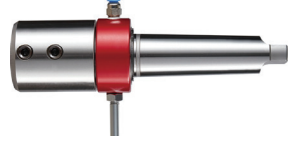
Ground



(MK)ISO 296



ISO 9766



Tip Kod	A	B	C	D	E	MK	Fiyat Euro
	Tutucu iç Çapı	Ref. Boyu	Tutucu Gövde Dış çapı	Gövde Dış çapı	Toplam Boy		
LNK-MK3-16	16,0	100,0	37,0	54,0	194,0	3	*
LNK-MK3-20	20,0	103,0	40,0	54,0	197,5	3	*
LNK-MK3-25	25,0	109,0	49,0	54,0	204,0	3	*

Tip Kod	A	B	C	D	E	MK	Fiyat Euro
	Tutucu iç Çapı	Ref. Boyu	Tutucu Gövde Dış çapı	Gövde Dış çapı	Toplam Boy		
LNK-MK4-16	16,0	110,0	37,0	63,5	227,5	4	*
LNK-MK4-20	20,0	113,0	40,0	63,5	230,5	4	*
LNK-MK4-25	25,0	119,0	49,0	63,5	236,5	4	*
LNK-MK4-32	32,0	128,0	64,0	76,0	245,5	4	*
LNK-MK4-40	40,0	139,0	73,0	76,0	256,5	4	*





SÜPER HSS YAPRAK MATKABI KESME DEĞERLERİ

İso	Malzeme	Isı	HB	N/mm2	Vc(m/min)			
					Min.	Önerilen	Maks.	
P	alaşımız çelik	<0.25%C	Tavlınmış	100-150	370-500	38	54	70
	Y13 1215 1.0736	>0.25%C	Tavlınmış	175-225	600-775	35	50	64
	Y15 1213 1.0715	<0.55%C	Söndürülmüş ve Temperlenmiş	225-275	775-940	32	45	59
	düşük karbonlu çelik	>0.55%C	Tavlınmış	275-325	940-1090	25	36	47
	45 1045 1.0503		Söndürülmüş ve Temperlenmiş	300	1000	22	32	41
	Q345B 1140 1.7026		Tavlınmış	175-225	600-775	33	47	62
	40Cr 5140 1.7035		Tavlınmış	225-275	775-940	32	45	59
	42Cr 4140 1.7225		Tavlınmış	275-325	940-1090	28	41	53
			Temperli	325-375	1090-1265	24	34	44
	Yüksek alaşımlı çelik, Takım çeliği, Dökme çelik		Tavlınmış	225-300	600-1020	22	32	41
	Cr12, D3, 1.2080, 4Cr5MoSiV, 1.2344		Temperli	300-350	1020-1180	19	27	35
	Paslanmaz Çelik Ferritik / Martensitik		Ferritik	185-275	640-940	16	23	29
	0Cr13 403 1.400		Martensitik	275-300	940-1180	19	27	35
	2Cr13 410 1.4401		Tavlınmış / Sert	135-185	480-640	18	25	32
	Paslanmaz Çelik Östenitik		Döküm + İşlenmemiş	185-275	640-940	18	25	32
M	0Cr18Ni9 304 1.4301	N<0.1%	Ferritik	135-185	480-640	19	27	35
	0Cr17Ni11Mo2 316 1.4401	N>0.1%	Ferritik	185-275	640-940	16	23	29
	Süper Paslanmaz Çelik		Ferritik	120-150	430-500	38	54	70
K	Gri Dökme Demir		Ferritik	150-200	500-700	35	50	64
	HT200 NO.30 GG20		Perlitik	200-220	700-755	32	45	59
	HT250 NO.35 GG25		Perlitik	220-260	755-890	32	45	59
	Dökme Demir Sfero		Ferritik	120-150	430-500	32	45	59
	Q400-18 60-40-18 GGG40		Perlitik	260-320	890-1020	32	45	59
	Q600-3 80-60-03 GGG60							
N	Dövülebilir Dökme Demir							
	Dövme Alüminyum		30	100	47	68	88	
			Sert	180	600	41	59	76
	Döküm Alüminyum	<12%Si	30	100	47	68	88	
		>12%Si	Sert	180	600	41	59	76
	Bakır Alaşımları		Serbest Kesim	100-200	370-670	47	68	88
		>1%Pb	Pirinç	200-250	670-855	47	68	88
			Elektrolitik Bakır	100	370	47	68	88
	Metal olmayan		Duro plastik - Fiber Pilastikler		-	47	68	88
S			Sert Kauçuk	60	200	47	68	88
	Yüksek Sıcaklık Alaşımlar		Temperli	140-220	480-755	14	20	27
	Hastelloy B, Inconel 600,		Sert	223-310	755-990	11	16	21
			Temperli	250	-	11	16	21
			İşlenmiş	350	-	11	16	21
			Döküm	320	-	11	16	21
	Titanyum		320	Rm 400	11	16	21	
		a + B a + B Sert Alaşımlar		Rm 1050	11	16	21	
H	Hardox, AR400, T-1		Sertleştirilmiş	400	1365	7	10	13
			Sertleştirilmiş	500	1600	-	-	-
	Güçlendirilmiş Çelik		Sertleştirilmiş	300-400	1020-1365	9	13	16
			Sertleştirilmiş	400-500	1365+	-	-	-

Linux



(fn)mm/r																				
Ø 9.5-12.5mm			Ø 13.00-17.5mm			Ø 18.00-24.00mm			Ø 25.00-35.00mm			Ø 36.00-47.00mm			Ø 48.00-65.00mm			Ø 66.00-114.00mm		
Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.
0.09	0.12	0.17	0.13	0.17	0.23	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47	0.29	0.39	0.54	0.36	0.48	0.66
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.25	0.33	0.45	0.29	0.38	0.53
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.25	0.33	0.45	0.29	0.38	0.53
0.07	0.09	0.12	0.09	0.12	0.17	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.25	0.33	0.45	0.29	0.38	0.53
0.05	0.07	0.10	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.35	0.47	0.65	0.39	0.52	0.72
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.36	0.48	0.66
0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.35	0.47	0.65	0.39	0.52	0.72
0.05	0.07	0.10	0.08	0.10	0.14	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.21	0.28	0.39
0.05	0.07	0.10	0.08	0.10	0.14	0.13	0.17	0.23	0.16	0.21	0.29	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43	0.29	0.38	0.53	0.34	0.45	0.62	0.36	0.48	0.66
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.36	0.48	0.66	0.39	0.52	0.72
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	0.19	0.26	0.35	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	0.19	0.26	0.35	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

KARBÜR YAPRAK MATKABI KESME DEĞERLERİ

Iso	Malzeme	Isı	HB	N/mm2	Vc(m/min)			
					Min.	Önerilen	Maks.	
P	alaşımız çelik Y13 1215 1.0736 Y15 1213 1.0715 düşük karbonlu çelik 45 1045 1.0503 Q345B 1140 1.7026	<0.25%C	Tavlınmış	100-150	370-500	75	94	117
		>0.25%C	Tavlınmış	175-225	600-775	55	69	86
		<0.55%C	Söndürülmüş ve Temperlenmiş	225-275	775-940	49	61	76
		>0.55%C	Tavlınmış	275-325	940-1090	41	51	64
			Söndürülmüş ve Temperlenmiş	300	1000	41	51	64
	40Cr 5140 1.7035 42Cr 4140 1.7225		Tavlınmış	175-225	600-775	54	67	84
			Tavlınmış	225-275	775-940	49	61	76
			Tavlınmış	275-325	940-1090	45	56	70
			Temperli	325-375	1090-1265	40	50	62
	Yüksek alaşımlı çelik, Takım çeliği, Dökme çelik Cr12, D3, 1.2080, 4Cr5MoS1v, 1.2344		Tavlınmış	225-300	600-1020	40	50	62
			Temperli	300-350	1020-1180	30	38	47
M	Paslanmaz Çelik Ferritik / Martensitik 0Cr13 403 1.400 2Cr13 410 1.4401		Ferritik	185-275	640-940	37	46	58
			Martensitik	275-300	940-1180	29	36	45
	Paslanmaz Çelik Östenitik 0Cr18Ni9 304 1.4301 0Cr17Ni11Mo2 316 1.4401		Tavlınmış / Sert	135-185	480-640	37	46	58
			Döküm + İşlenmemiş	185-275	640-940	29	36	45
	Süper Paslanmaz Çelik	N<0.1%	Ferritik	135-185	480-640	19	24	30
		N>0.1%	Ferritik	185-275	640-940	15	19	24
K	Gri Dökme Demir HT200 NO.30 GG20 HT250 NO.35 GG25		Ferritik	120-150	430-500	78	98	122
			Perlitik	150-200	500-700	75	94	117
	Dökme Demir Sfero Q400-18 60-40-18 GGG40 Q600-3 80-60-03 GGG60		Ferritik	200-220	700-755	67	84	105
			Perlitik	220-260	755-890	58	72	90
	Dövülebilir Dökme Demir		Ferritik	120-150	430-500	75	94	117
			Perlitik	260-320	890-1020	52	66	82
N	Dövme Alüminyum			30	100	105	150	195
			Sert	180	600	91	130	169
	Döküm Alüminyum	<12%Si		30	100	105	150	195
			Sert	180	600	91	130	169
	Bakır Alaşımları	>12%Si	Yüksek Sıcaklık	-	-	91	130	169
		>1%Pb	Serbest Kesim	100-200	370-670	105	150	195
			Pirinç	200-250	670-855	105	150	195
	Elektrolitik Bakır		100	370	105	150	195	
	Metal olmayan		Duro plastik - Fiber Pilaştıklar		-	105	150	195
			Sert Kauçuk	60	200	105	150	195
S	Yüksek Sıcaklık Alaşımlar Hastelloy B, Inconel 600,		Temperli	140-220	480-755	19	24	30
			Sert	223-310	755-990	15	18	23
			Temperli	250	-	19	24	30
			İşlenmiş	350	-	15	18	23
			Döküm	320	-	15	18	30
	Titanyum			320	Rm 400	22	27	34
a + B a + B Sert Alaşımlar			Rm 1050	17	21	26		
H	Hardox, AR400, T-1		Sertleştirilmiş	400	1365	23	29	36
			Sertleştirilmiş	500	1600	19	24	30
	Güçlendirilmiş Çelik		Sertleştirilmiş	300-400	1020-1365	24	30	38
			Sertleştirilmiş	400-500	1365+	19	24	30

(fn)mm/r											
Ø 9.5-12.5mm			Ø 13.00-17.5mm			Ø 18.00-24.00mm			Ø 25.00-35.00mm		
Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.	Min.	Önerilen	Maks.
0.09	0.12	0.17	0.13	0.17	0.23	0.17	0.22	0.31	0.21	0.28	0.39
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
0.07	0.09	0.12	0.09	0.12	0.17	0.13	0.17	0.23	0.19	0.25	0.34
0.05	0.07	0.10	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23
0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.13	0.17	0.23
0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19	0.10	0.14	0.19
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43
0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
0.05	0.07	0.10	0.08	0.10	0.14	0.09	0.12	0.17	0.12	0.16	0.22
0.05	0.07	0.10	0.08	0.10	0.14	0.13	0.17	0.23	0.16	0.21	0.29
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22
0.02	0.03	0.04	0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22
0.02	0.03	0.04	0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19