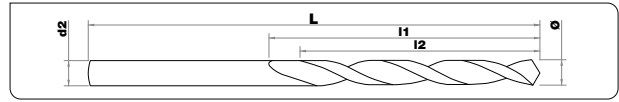
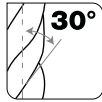
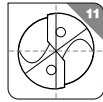




**POLARIS | SOLID CARBIDE DRILL
TIALN | 5XD WITH COOLANT FEED.**

**POLARIS | BROCA METAL DURO
TIALN | 5XD CON REFRIGERACIÓN
INTERNA.**

**POLARIS | PUNTA IN MD TIAIN | 5XD
CON REFRIGERAZIONE.**



Designed for universal application.

Diseñado para uso universal.

Concepita per forature polivalenti.



Steels for heat treatment
200-700N/mm²
Aceros para tratamiento térmico
200-700 N/mm²
Acciai per trattamento termico
200-700N/mm²



Steels for heat treatment
700-1200N/mm²
Aceros para tratamiento térmico
700-1200 N/mm²
Acciai per trattamento termico
700-1200N/mm²



Stainless Steels
Aceros inoxidables
Acciai inossidabili



Cast iron
Fundiciones
Ghisa



8241701	EAN	Ø	d2	L	I1	QTY PCB	€
82417010400	3221910832575	4,00	6,00	74	36	1 1	
82417010420	3221910832582	4,20	6,00	74	36	1 1	
82417010450	3221910832599	4,50	6,00	74	36	1 1	
82417010500	3221910832605	5,00	6,00	82	44	1 1	
82417010550	3221910832612	5,50	6,00	82	44	1 1	
82417010600	3221910832629	6,00	6,00	82	44	1 1	
82417010650	3221910832636	6,50	8,00	91	53	1 1	
82417010675	3221910832643	6,75	8,00	91	53	1 1	
82417010680	3221910832650	6,80	8,00	91	53	1 1	
82417010700	3221910832667	7,00	8,00	91	53	1 1	
82417010750	3221910832674	7,50	8,00	91	53	1 1	
82417010800	3221910832681	8,00	8,00	91	53	1 1	
82417010850	3221910832698	8,50	10,00	103	61	1 1	
82417010900	3221910832704	9,00	10,00	103	61	1 1	
82417010950	3221910832711	9,50	10,00	103	61	1 1	
82417011000	3221910832728	10,00	10,00	103	61	1 1	
82417011020	3221910832735	10,20	12,00	118	71	1 1	
82417011050	3221910832742	10,50	12,00	118	71	1 1	
82417011100	3221910832759	11,00	12,00	118	71	1 1	
82417011150	3221910832766	11,50	12,00	118	71	1 1	
82417011200	3221910832773	12,00	12,00	118	71	1 1	
82417011250	3221910832780	12,50	14,00	124	77	1 1	
82417011300	3221910832797	13,00	14,00	124	77	1 1	
82417011350	3221910832803	13,50	14,00	124	77	1 1	
82417011400	3221910832810	14,00	14,00	124	77	1 1	
82417011450	3221910832827	14,50	16,00	133	83	1 1	
82417011500	3221910832834	15,00	16,00	133	83	1 1	
82417011550	3221910832841	15,50	16,00	133	83	1 1	
82417011600	3221910832858	16,00	16,00	133	83	1 1	
82417011650	3221910832865	16,50	18,00	143	93	1 1	
82417011700	3221910832872	17,00	18,00	143	93	1 1	
82417011750	3221910832889	17,50	18,00	143	93	1 1	
82417011800	3221910832896	18,00	18,00	143	93	1 1	
82417011850	3221910832902	18,50	20,00	153	101	1 1	
82417011900	3221910832919	19,00	20,00	153	101	1 1	
82417011950	3221910832926	19,50	20,00	153	101	1 1	
82417012000	3221910832933	20,00	20,00	153	101	1 1	

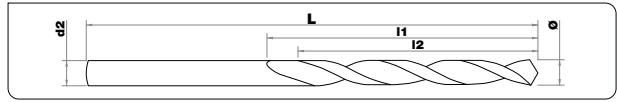
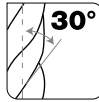
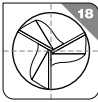




SOLID CARBIDE 3 FLUTE DRILL.

BROCA METAL DURO MONOBLOC 3
CORTES.

PUNTA IN MD INTEGRALE 3 TAGLI.



Robustness and exceptional quality
(roundness, surface finish).

Fuerza y calidad excepcional (redondez,
acabado de la superficie).

Robustezza e qualità eccezionali (roton-
dità, finitura superficiale).



Steels for heat treatment
200-700N/mm²
Aceros para tratamiento térmico
200-700 N/mm²
Acciai per trattamento termico
200-700N/mm²



Cast iron
Fundiciones
Ghisa



Aluminium alloys
Aleaciones de aluminio
Leghe di alluminio



Copper alloys
Aleaciones de cobre
Leghe di rame



8240511	EAN	Ø	d2	L	l1	QTY	PCB	€
82405110300	3221910800765	3,00	3,00	46	27	1	1	
82405110310	3221910800772	3,10	3,10	49	30	1	1	
82405110320	3221910800789	3,20	3,20	49	30	1	1	
82405110330	3221910800796	3,30	3,30	49	30	1	1	
82405110340	3221910800802	3,40	3,40	52	36	1	1	
82405110350	3221910800819	3,50	3,50	52	36	1	1	
82405110360	3221910800826	3,60	3,60	52	36	1	1	
82405110370	3221910800833	3,70	3,70	52	36	1	1	
82405110380	3221910800840	3,80	3,80	55	38	1	1	
82405110390	3221910800857	3,90	3,90	55	38	1	1	
82405110400	3221910800864	4,00	4,00	55	38	1	1	
82405110410	3221910800871	4,10	4,10	55	38	1	1	
82405110420	3221910800888	4,20	4,20	55	38	1	1	
82405110430	3221910800895	4,30	4,30	58	40	1	1	
82405110440	3221910800901	4,40	4,40	58	40	1	1	
82405110450	3221910800918	4,50	4,50	58	40	1	1	
82405110460	3221910800925	4,60	4,60	58	40	1	1	
82405110470	3221910800932	4,70	4,70	58	40	1	1	
82405110480	3221910800949	4,80	4,80	62	43	1	1	
82405110490	3221910800956	4,90	4,90	62	43	1	1	
82405110500	3221910800963	5,00	5,00	62	43	1	1	
82405110510	3221910800970	5,10	5,10	62	43	1	1	
82405110520	3221910800987	5,20	5,20	62	43	1	1	
82405110530	3221910800994	5,30	5,30	62	43	1	1	
82405110540	3221910801007	5,40	5,40	66	45	1	1	
82405110550	3221910801014	5,50	5,50	66	45	1	1	
82405110560	3221910801021	5,60	5,60	66	45	1	1	
82405110570	3221910801038	5,70	5,70	66	45	1	1	
82405110580	3221910801045	5,80	5,80	66	45	1	1	
82405110590	3221910801052	5,90	5,90	66	45	1	1	
82405110600	3221910801069	6,00	6,00	66	45	1	1	
82405110610	3221910801076	6,10	6,10	70	47	1	1	
82405110620	3221910801083	6,20	6,20	70	47	1	1	
82405110630	3221910801090	6,30	6,30	70	47	1	1	
82405110640	3221910801106	6,40	6,40	70	47	1	1	
82405110650	3221910801113	6,50	6,50	70	47	1	1	
82405110660	3221910801120	6,60	6,60	70	47	1	1	
82405110670	3221910801137	6,70	6,70	70	47	1	1	
82405110680	3221910801144	6,80	6,80	74	49	1	1	
82405110690	3221910801151	6,90	6,90	74	49	1	1	
82405110700	3221910801168	7,00	7,00	74	49	1	1	
82405110750	3221910801212	7,50	7,50	74	49	1	1	
82405110780	3221910801243	7,80	7,80	79	52	1	1	
82405110800	3221910801267	8,00	8,00	79	52	1	1	
82405110850	3221910801311	8,50	8,50	79	52	1	1	
82405110880	3221910801328	8,80	8,80	84	56	1	1	
82405110900	3221910801335	9,00	9,00	84	56	1	1	
82405110950	3221910801359	9,50	9,50	84	56	1	1	
82405110980	3221910801366	9,80	9,80	89	60	1	1	
82405111000	3221910801373	10,00	10,00	89	60	1	1	
82405111020	3221910801380	10,20	10,20	89	60	1	1	



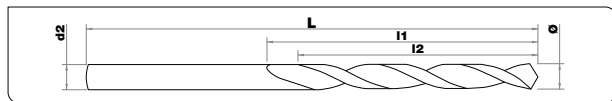
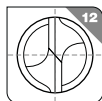
8240511	EAN	Ø	d2	L	I1	QTY PCB	€
82405111050	3221910801403	10,50	10,50	89	60	1 1	
82405111100	3221910801410	11,00	11,00	95	64	1 1	
82405111150	3221910801427	11,50	11,50	95	64	1 1	
82405111200	3221910801434	12,00	12,00	102	70	1 1	
82405111250	3221910801441	12,50	12,50	102	70	1 1	
82405111300	3221910801458	13,00	13,00	102	70	1 1	
82405111350	3221910801465	13,50	13,50	107	73	1 1	
82405111400	3221910801472	14,00	14,00	107	73	1 1	
82405111450	3221910801489	14,50	14,50	111	76	1 1	
82405111500	3221910801496	15,00	15,00	111	76	1 1	
82405111600	3221910801519	16,00	16,00	115	80	1 1	



SOLID CARBIDE STUB LENGTH DRILL.

BROCA METAL DURO MONOBLOC SERIE EXTRA-CORTA.

PUNTA IN MD INTEGRALE EXTRA-CORTA.



For abrasive materials, good chip clearance, profitability.

Para materiales abrasivos, buena evacuación de viruta, rentabilidad.

Per materiali abrasivi, buona evacuazione dei trucioli. Redditività.



Steels for heat treatment
200-700N/mm²
Aceros para tratamiento térmico
200-700 N/mm²
Acciai per trattamento termico
200-700N/mm²



Steels for heat treatment
700-1400N/mm²
Aceros para tratamiento térmico
700-1400 N/mm²
Acciai per trattamento termico
700-1400N/mm²



Stainless Steels
Aceros inoxidables
Acciai inossidabili



Cast iron
Fundiciones
Ghisa



Aluminium alloys
Aleaciones de aluminio
Leghe di alluminio



Ni / Co based special alloys & Titanium
Aleaciones refractarias Co / Ni y Titanio
Leghe refrattarie Co / Ni i titanio



8240221	EAN	Ø	d2	L	I1	QTY PCB	€
82402210100	3221910799083	1,00	1,00	30	11	1 1	
82402210110	3221910799090	1,10	1,10	30	11	1 1	
82402210120	3221910799106	1,20	1,20	30	11	1 1	
82402210130	3221910799113	1,30	1,30	30	11	1 1	
82402210140	3221910799120	1,40	1,40	30	11	1 1	
82402210150	3221910799137	1,50	1,50	30	11	1 1	
82402210160	3221910799144	1,60	1,60	38	12	1 1	
82402210170	3221910799151	1,70	1,70	38	12	1 1	
82402210180	3221910799168	1,80	1,80	38	12	1 1	
82402210190	3221910799175	1,90	1,90	38	12	1 1	
82402210200	3221910799182	2,00	2,00	38	12	1 1	
82402210210	3221910799199	2,10	2,10	38	12	1 1	
82402210220	3221910799205	2,20	2,20	40	13	1 1	
82402210230	3221910799212	2,30	2,30	40	13	1 1	
82402210240	3221910799229	2,40	2,40	43	14	1 1	
82402210250	3221910799236	2,50	2,50	43	14	1 1	
82402210260	3221910799243	2,60	2,60	43	14	1 1	
82402210270	3221910799250	2,70	2,70	46	16	1 1	
82402210280	3221910799267	2,80	2,80	46	16	1 1	
82402210290	3221910799274	2,90	2,90	46	16	1 1	
82402210300	3221910799281	3,00	3,00	46	16	1 1	
82402210310	3221910799298	3,10	3,10	49	18	1 1	
82402210320	3221910799304	3,20	3,20	49	18	1 1	
82402210330	3221910799311	3,30	3,30	49	18	1 1	
82402210340	3221910799328	3,40	3,40	52	20	1 1	
82402210350	3221910799335	3,50	3,50	52	20	1 1	
82402210360	3221910799342	3,60	3,60	52	20	1 1	
82402210370	3221910799359	3,70	3,70	52	20	1 1	
82402210380	3221910799366	3,80	3,80	55	22	1 1	
82402210390	3221910799373	3,90	3,90	55	22	1 1	
82402210400	3221910799380	4,00	4,00	55	22	1 1	
82402210410	3221910799397	4,10	4,10	55	22	1 1	
82402210420	3221910799403	4,20	4,20	55	22	1 1	
82402210430	3221910799410	4,30	4,30	58	24	1 1	
82402210440	3221910799427	4,40	4,40	58	24	1 1	
82402210450	3221910799434	4,50	4,50	58	24	1 1	
82402210460	3221910799441	4,60	4,60	58	24	1 1	





8240221	EAN	Ø	d2	L	I1	QTY PCB	€
82402210470	3221910799458	4,70	4,70	58	24	1 1	
82402210480	3221910799465	4,80	4,80	62	26	1 1	
82402210490	3221910799472	4,90	4,90	62	26	1 1	
82402210500	3221910799489	5,00	5,00	62	26	1 1	
82402210510	3221910799496	5,10	5,10	62	26	1 1	
82402210520	3221910799502	5,20	5,20	62	26	1 1	
82402210530	3221910799519	5,30	5,30	62	26	1 1	
82402210540	3221910799526	5,40	5,40	66	28	1 1	
82402210550	3221910799533	5,50	5,50	66	28	1 1	
82402210560	3221910799540	5,60	5,60	66	28	1 1	
82402210570	3221910799557	5,70	5,70	66	28	1 1	
82402210580	3221910799564	5,80	5,80	66	28	1 1	
82402210590	3221910799571	5,90	5,90	66	28	1 1	
82402210600	3221910799588	6,00	6,00	66	28	1 1	
82402210610	3221910799595	6,10	6,10	70	31	1 1	
82402210620	3221910799601	6,20	6,20	70	31	1 1	
82402210630	3221910799618	6,30	6,30	70	31	1 1	
82402210640	3221910799625	6,40	6,40	70	31	1 1	
82402210650	3221910799632	6,50	6,50	70	31	1 1	
82402210660	3221910799649	6,60	6,60	70	31	1 1	
82402210670	3221910799656	6,70	6,70	70	31	1 1	
82402210680	3221910799663	6,80	6,80	74	34	1 1	
82402210690	3221910799670	6,90	6,90	74	34	1 1	
82402210700	3221910799687	7,00	7,00	74	34	1 1	
82402210710	3221910799694	7,10	7,10	74	34	1 1	
82402210720	3221910799700	7,20	7,20	74	34	1 1	
82402210730	3221910799717	7,30	7,30	74	34	1 1	
82402210740	3221910799724	7,40	7,40	74	34	1 1	
82402210750	3221910799731	7,50	7,50	74	34	1 1	
82402210760	3221910799748	7,60	7,60	79	37	1 1	
82402210770	3221910799755	7,70	7,70	79	37	1 1	
82402210780	3221910799762	7,80	7,80	79	37	1 1	
82402210790	3221910799779	7,90	7,90	79	37	1 1	
82402210800	3221910799786	8,00	8,00	79	37	1 1	
82402210810	3221910799793	8,10	8,10	79	37	1 1	
82402210820	3221910799809	8,20	8,20	79	37	1 1	
82402210830	3221910799816	8,30	8,30	79	37	1 1	
82402210840	3221910799823	8,40	8,40	79	37	1 1	
82402210850	3221910799830	8,50	8,50	79	37	1 1	
82402210900	3221910799854	9,00	9,00	84	40	1 1	
82402210950	3221910799878	9,50	9,50	84	40	1 1	
82402211000	3221910799892	10,00	10,00	89	43	1 1	
82402211020	3221910799908	10,20	10,20	89	43	1 1	
82402211050	3221910799915	10,50	10,50	89	43	1 1	
82402211100	3221910799922	11,00	11,00	95	47	1 1	
82402211150	3221910799939	11,50	11,50	95	47	1 1	
82402211200	3221910799946	12,00	12,00	102	51	1 1	
82402211250	3221910799953	12,50	12,50	102	51	1 1	
82402211300	3221910799960	13,00	13,00	102	51	1 1	
82402211400	3221910799977	14,00	14,00	107	54	1 1	
82402211600	3221910799991	16,00	16,00	115	58	1 1	

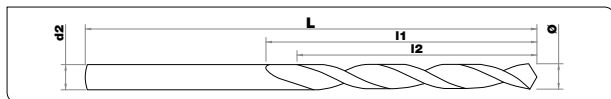
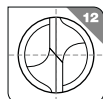




SOLID CARBIDE JOBBER LENGTH DRILL.

BROCA METAL DURO MONOBLOC SERIE CORTA.

PUNTA IN MD INTEGRALE CORTA.



For abrasive materials, good chip clearance, profitability.

Para materiales abrasivos, buena evacuación de viruta, rentabilidad.

Per materiali abrasivi, buona evacuazione dei trucioli. Redditività.



Steels for heat treatment
200-700N/mm²
Aceros para tratamiento térmico
200-700 N/mm²
Acciai per trattamento termico
200-700N/mm²



Steels for heat treatment
700-1400N/mm²
Aceros para tratamiento térmico
700-1400 N/mm²
Acciai per trattamento termico
700-1400N/mm²



Stainless Steels
Aceros inoxidables
Acciai inossidabili



Cast iron
Fundiciones
Ghisa



Aluminium alloys
Aleaciones de aluminio
Leghe di alluminio



Ni / Co based special alloys & Titanium
Aleaciones refractarias Co / Ni y Titanio
Leghe refrattarie Co / Ni i titanio



8243921	EAN	Ø	d2	L	l1	QTY	PCB	€
82439210100	3221910809331	1,00	1,00	34	12	1	1	
82439210110	3221910809348	1,10	1,10	36	14	1	1	
82439210120	3221910809355	1,20	1,20	38	16	1	1	
82439210130	3221910809362	1,30	1,30	38	16	1	1	
82439210140	3221910809379	1,40	1,40	40	18	1	1	
82439210150	3221910809386	1,50	1,50	40	18	1	1	
82439210160	3221910809393	1,60	1,60	43	20	1	1	
82439210170	3221910809409	1,70	1,70	43	20	1	1	
82439210180	3221910809416	1,80	1,80	46	22	1	1	
82439210190	3221910809423	1,90	1,90	46	22	1	1	
82439210200	3221910809430	2,00	2,00	49	24	1	1	
82439210210	3221910809447	2,10	2,10	49	24	1	1	
82439210220	3221910809454	2,20	2,20	53	27	1	1	
82439210230	3221910809461	2,30	2,30	53	27	1	1	
82439210240	3221910809478	2,40	2,40	57	30	1	1	
82439210250	3221910809485	2,50	2,50	57	30	1	1	
82439210260	3221910809492	2,60	2,60	57	30	1	1	
82439210270	3221910809508	2,70	2,70	61	33	1	1	
82439210280	3221910809515	2,80	2,80	61	33	1	1	
82439210290	3221910809522	2,90	2,90	61	33	1	1	
82439210300	3221910809539	3,00	3,00	61	33	1	1	
82439210310	3221910809546	3,10	3,10	65	36	1	1	
82439210320	3221910809553	3,20	3,20	65	36	1	1	
82439210330	3221910809560	3,30	3,30	65	36	1	1	
82439210340	3221910809577	3,40	3,40	70	39	1	1	
82439210350	3221910809584	3,50	3,50	70	39	1	1	
82439210360	3221910809591	3,60	3,60	70	39	1	1	
82439210370	3221910809607	3,70	3,70	70	39	1	1	
82439210380	3221910809614	3,80	3,80	75	43	1	1	
82439210390	3221910809621	3,90	3,90	75	43	1	1	
82439210400	3221910809638	4,00	4,00	75	43	1	1	
82439210410	3221910809645	4,10	4,10	75	43	1	1	
82439210420	3221910809652	4,20	4,20	75	43	1	1	
82439210430	3221910809669	4,30	4,30	80	47	1	1	
82439210440	3221910809676	4,40	4,40	80	47	1	1	
82439210450	3221910809683	4,50	4,50	80	47	1	1	
82439210460	3221910809690	4,60	4,60	80	47	1	1	
82439210470	3221910809706	4,70	4,70	80	47	1	1	
82439210480	3221910809713	4,80	4,80	86	52	1	1	
82439210490	3221910809720	4,90	4,90	86	52	1	1	
82439210500	3221910809737	5,00	5,00	86	52	1	1	
82439210510	3221910809744	5,10	5,10	86	52	1	1	
82439210520	3221910809751	5,20	5,20	86	52	1	1	
82439210530	3221910809768	5,30	5,30	86	52	1	1	
82439210540	3221910809775	5,40	5,40	93	57	1	1	
82439210550	3221910809782	5,50	5,50	93	57	1	1	
82439210560	3221910809799	5,60	5,60	93	57	1	1	
82439210570	3221910809805	5,70	5,70	93	57	1	1	
82439210580	3221910809812	5,80	5,80	93	57	1	1	
82439210590	3221910809829	5,90	5,90	93	57	1	1	
82439210600	3221910809836	6,00	6,00	93	57	1	1	



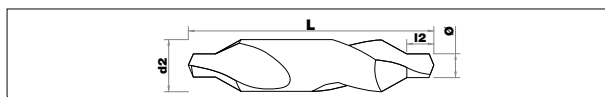
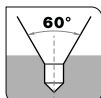
8243921	EAN	Ø	d2	L	I1	QTY PCB	€
82439210610	3221910809843	6,10	6,10	101	63	1 1	
82439210620	3221910809850	6,20	6,20	101	63	1 1	
82439210630	3221910809867	6,30	6,30	101	63	1 1	
82439210640	3221910809874	6,40	6,40	101	63	1 1	
82439210650	3221910809881	6,50	6,50	101	63	1 1	
82439210660	3221910809898	6,60	6,60	101	63	1 1	
82439210670	3221910809904	6,70	6,70	101	63	1 1	
82439210680	3221910809911	6,80	6,80	109	69	1 1	
82439210690	3221910809928	6,90	6,90	109	69	1 1	
82439210700	3221910809935	7,00	7,00	109	69	1 1	
82439210750	3221910809980	7,50	7,50	109	69	1 1	
82439210780	3221910810016	7,80	7,80	117	75	1 1	
82439210800	3221910810030	8,00	8,00	117	75	1 1	
82439210850	3221910810085	8,50	8,50	117	75	1 1	
82439210900	3221910810108	9,00	9,00	125	81	1 1	
82439210950	3221910810122	9,50	9,50	125	81	1 1	
82439211000	3221910810146	10,00	10,00	133	87	1 1	
82439211020	3221910810153	10,20	10,20	133	87	1 1	
82439211050	3221910810160	10,50	10,50	133	87	1 1	
82439211100	3221910810177	11,00	11,00	142	94	1 1	
82439211150	3221910810184	11,50	11,50	142	94	1 1	
82439211200	3221910810191	12,00	12,00	151	101	1 1	
82439211300	3221910810207	13,00	13,00	151	101	1 1	
82439211400	3221910810214	14,00	14,00	160	108	1 1	



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For centering.

Para centrar.

Per centrare.



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200-700N/mm²
Aceros para tratamiento térmico
200-700 N/mm²
Acciai per trattamento termico
200-700N/mm²



Steels for heat treatment
700-1400N/mm²
Aceros para tratamiento térmico
700-1400 N/mm²
Acciai per trattamento termico
700-1400N/mm²



Stainless Steels
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Acciai inossidabili



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Aluminium alloys
Aleaciones de aluminio
Leghe di alluminio



Ni / Co based special alloys &
Titanium
Aleaciones refractarias Co / Ni
y Titanio
Leghe refrattarie Co / Ni i titanio



8241941	EAN	Ø	d2	L	I1	QTY PCB	€
8241941100315	3221910803889	3,15	1,00	30	2	1 1	
8241941160400	3221910803896	4,00	1,60	35	3	1 1	
8241941200500	3221910803902	5,00	2,00	40	3	1 1	
8241941250630	3221910803919	6,30	2,50	45	4	1 1	
8241941315800	3221910803926	8,00	3,15	50	5	1 1	
82419414001000	3221910803933	10,00	4,00	55	6	1 1	

