



BISON

FIXED AND LIVE CENTRES



1 **MANDRINI MANUALI E AUTOMATICI**
MANUAL AND POWER CHUCKS

2 **CONTROPUNTE FISSE E ROTANTI**
FIXED AND LIVE CENTRES

(MANDRINI PORTAPUNTA A SERRAGGIO, BUSSOLE DI RIDUZIONE, DATI TECNICI)
(KEYLESS DRILL CHUCKS, REDUCTION SLEEVES, TECHNICAL INFO)

3 **MORSE E DIVISORI**
VICES AND INDEXING FIXTURES

4 **MANDRINERIA**
SPINDLE TOOLING

TUTTO PER IL TORNIO MANUALE EVERYTHING FOR THE MANUAL LATHE

MANDRINO MANUALE (AUTOCENTRANTE, INDIPENDENTE, COMBINATO)
MANUAL CHUCK (SELF-CENTERING, INDEPENDENT, COMBINED)

1

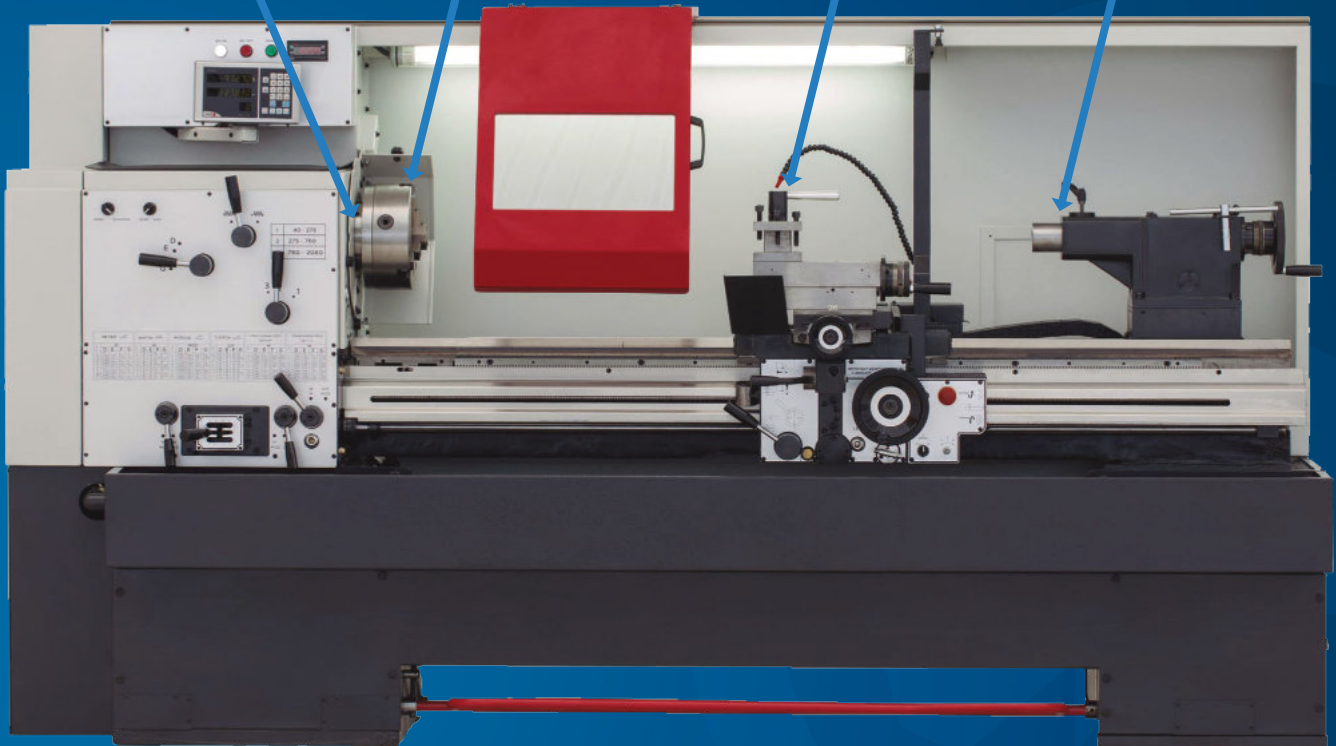
1 FLANGIA
ADAPTER PLATE

TORRETTA PORTAUTENSILE A CAMBIO RAPIDO
QUICK-CHANGE TOOLPOST

4

CONTROPUNTE
CENTERS

2



2 ANNI DI GARANZIA
2 YEAR WARRANTY

TUTTO PER IL TORNIO CNC EVERYTHING FOR THE CNC LATHE

**MANDRINO (AUTOCENTRANTE MANUALE / AUTOMATICO, INDIPENDENTE, COMBINATO)
CHUCK (POWER / MANUAL SELF-CENTERING, INDEPENDENT, COMBINED)**

1

1

**FLANGIA
ADAPTER PLATE**

**MANDRINERIA
SPINDLE TOOLING**

4

**CONTROPUNTE
CENTERS**

2

**2 ANNI DI GARANZIA
2 YEAR WARRANTY**

TUTTO PER LA FRESA A 3 ASSI

EVERYTHING FOR THE 3-AXIS MILLING MACHINE

MANDRINERIA
SPINDLE TOOLING **4**

MANDRINERIA
SPINDLE TOOLING **4**



MORSE / DIVISORI
VICES / INDEXING FIXTURES **3**

1 **MANDRINO (AUTOCENTRANTE, INDIPENDENTE, COMBINATO)**
MANUAL CHUCK (SELF-CENTERING, INDEPENDENT, COMBINED)

2 ANNI DI GARANZIA
2 YEAR WARRANTY

TUTTO PER LA FRESA A 5 ASSI

EVERYTHING FOR THE 5-AXIS MILLING MACHINE



MANDRINERIA
SPINDLE TOOLING **4**

1 **MANDRINO (AUTOCENTRANTE, INDIPENDENTE, COMBINATO)**
MANUAL CHUCK (SELF-CENTERING, INDEPENDENT, COMBINED)

MORSE
VICES **3**

2 ANNI DI GARANZIA
2 YEAR WARRANTY

CONTROPUNTE CENTRES



CONTROPUNTE ROTANTI REVOLVING CENTRES

CUSPIDE A 60°
WITH 60° TIP

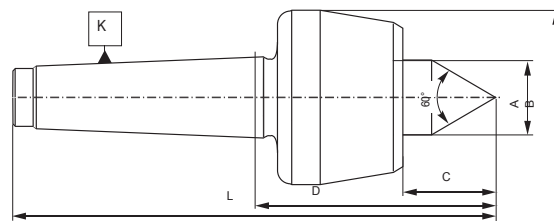
8811 R - STANDARD

ECCENTRICITÀ MAX 0.005
MAX ECCENTRICITY 0.005



8811 R - PRECISION

ECCENTRICITÀ MAX 0.003
MAX ECCENTRICITY 0.003

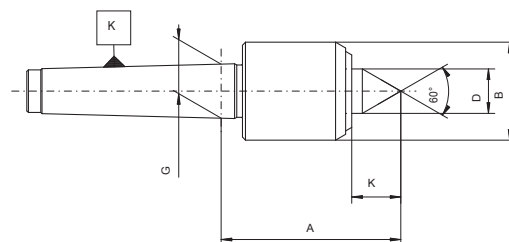


CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	36	17	60.5	114	100	7000
2	20	45	23.5	64.5	128.5	200	7000
3	25	60	30.5	79	160	500	5000
4	32	70	40	101.5	204	800	3800
5	40	90	49.5	128	257.5	2000	3000
6	50	105	57.5	152	334	3500	2600

8812 R

ECCENTRICITÀ MAX 0.005
MAX ECCENTRICITY 0.005

CORPO CON DIAMETRO MINORE
SMALLER BODY DIAMETER



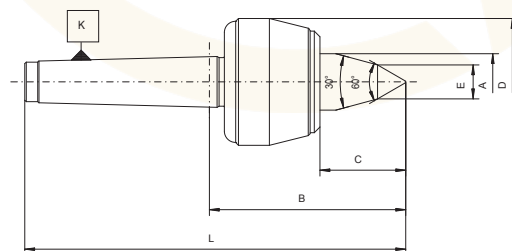
CONO MORSE MORSE TAPER	A	B	D	G	K	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	62	32	15	17,780	18	200	7000
3	62	34	15	23,825	18	400	7000
4	75.5	42	20	31,267	25	800	6300
5	104	58	30	44,399	34	1600	4300
6	143	80	42	63,348	49	3500	3000

CONTROPUNTE ROTANTI REVOLVING CENTRES

CON PUNTA PROLUNGATA
WITH ELONGATED TIP

8814 R

ECCENTRICITÀ MAX 0.005
MAX ECCENTRICITY 0.005

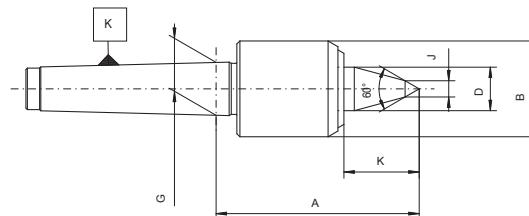


CONO MORSE MORSE TAPER	A	B	C	D	E	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	66.5	23	36	9	120	80	7000
2	20	74.5	33.5	45	10	138.5	140	7000
3	25	92	43.5	60	12	173	400	5000
4	32	113.5	52	70	14	216	500	3800
5	40	144.3	65.5	90	16	272.8	1200	3000
6	50	170.5	77.5	105	18	352.5	2500	2600

8813 R

ECCENTRICITÀ MAX 0.008
MAX ECCENTRICITY 0.008

CORPO CON DIAMETRO MINORE
SMALLER BODY DIAMETER



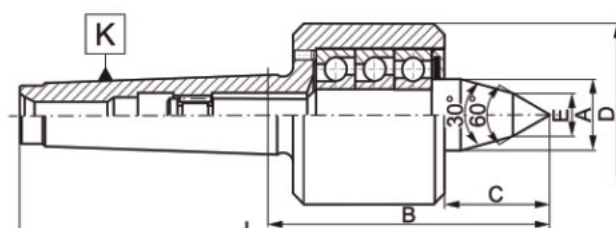
CONO MORSE MORSE TAPER	A	B	D	G	K	J	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	73	32	15	17.780	29	10	170	7000
3	74	34	15	23.825	30	11	340	7000
4	88.5	42	20	31.267	38	13	700	6300
5	119	58	30	44.399	49	14	1400	4300
6	164	80	42	63.348	70	18	3000	3000

CONTROPUNTE ROTANTI REVOLVING CENTRES

AD ALTA VELOCITÀ, CON PUNTA PROLUNGATA
HIGH SPEED, WITH ELONGATED TIP

8814 NC - PRECISION

ECCENTRICITÀ MAX 0.005
MAX ECCENTRICITY 0.005



8814 NC - STANDARD

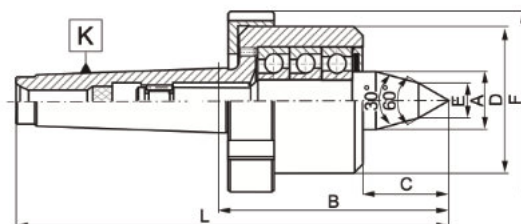
ECCENTRICITÀ MAX 0.010
MAX ECCENTRICITY 0.010

CONO MORSE MORSE TAPER	A	B	C	D	E	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
4	28	118.5	49	70	14	221	1000	7000
5	40	150.5	67.5	95	16	280	2000	6000

8815 NC

ECCENTRICITÀ MAX 0.005
MAX ECCENTRICITY 0.005

CON GHIERA DI ESTRAZIONE
WITH EXTRACTION RING NUT



CONO MORSE MORSE TAPER	A	B	C	D	E	F	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
4	28	118.5	49	70	14	82	221	1000	7000
5	40	150.5	67.5	95	16	110	280	2000	6000

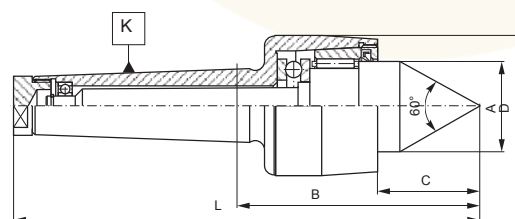
CONTROPUNTE ROTANTI REVOLVING CENTRES

CON COMPENSAZIONE RADIALE
WITH RADIAL COMPENSATION

8823

ECCENTRICITÀ MAX 0.003

MAX ECCENTRICITY 0.003



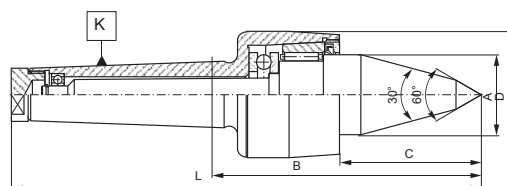
CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	24	73	26.5	44	137.5	100	8000
3	28	85	32.5	48	166	200	6000
4	38	94.5	43.5	60	196.5	400	4500
5	50	116.5	55.5	75	246	650	4000
6	60.5	135	62.5	90	317	1400	3000

8824

ECCENTRICITÀ MAX 0.015

MAX ECCENTRICITY 0.015

CON PUNTA PROLUNGATA
WITH ELONGATED TIP



CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	24	85	38.5	44	149.5	90	8000
3	28	100	47.5	48	181	180	6000
4	38	117.5	66.5	60	219.5	350	4500
5	50	147.5	86.5	75	277	600	4000
6	60.5	167	94.5	90	349	1300	3000

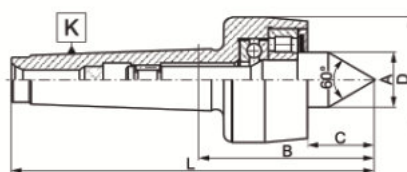
CONTROPUNTE ROTANTI REVOLVING CENTRES

PER APPLICAZIONI PESANTI
HEAVY DUTY

8811 - STANDARD

ECCENTRICITÀ MAX 0.008

MAX ECCENTRICITY 0.008



8811 - PRECISION

ECCENTRICITÀ MAX 0.003

MAX ECCENTRICITY 0.003

CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	49.5	17	38	103	100	5000
2	18	56.5	21.5	40	120.5	180	5000
3	25	75	27.5	56	156	450	4000
4	32	85	33.5	64	187	1000	3000
5	40	108	44	85	237	1900	2500
6	62.4	151.5	64	130	333.5	3700	2000
7	75	196.5	73.5	150	447	9500	1000

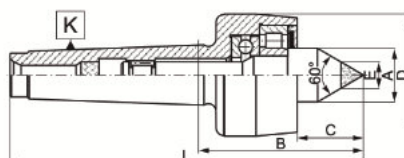
8810 - STANDARD

ECCENTRICITÀ MAX 0.008

MAX ECCENTRICITY 0.008



CON PUNTA IN METALLO DURO
WITH HARDENED METAL TIP



8810 - PRECISION

ECCENTRICITÀ MAX 0.003

MAX ECCENTRICITY 0.003

CONO MORSE MORSE TAPER	A	B	C	D	E	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	49.5	17	38	7	103	60	5000
2	18	56.5	21.5	40	7	120.5	120	5000
3	25	75	27.5	56	11	156	320	4000
4	32	85	33.5	64	14	187	500	3000
5	40	108	44	85	18	237	1250	2500
6	62.4	151.5	64	130	18	333.5	2200	2000

CONTROPUNTE ROTANTI REVOLVING CENTRES

PER APPLICAZIONI PESANTI
HEAVY DUTY

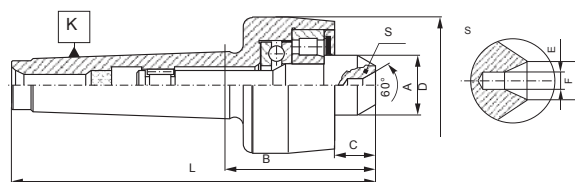
8809 - STANDARD

ECCENTRICITÀ MAX 0.008
MAX ECCENTRICITY 0.008

8809 - PRECISION

ECCENTRICITÀ MAX 0.003
MAX ECCENTRICITY 0.003

CON PUNTA FORATA CENTRALMENTE
WITH HOLLOW TIP



CONO MORSE MORSE TAPER	A	B	C	D	E	F	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	44	11.5	38	2.5	4.2	97.5	50	5000
2	18	52	16	40	2.5	5.3	115	100	5000
3	25	66	18.5	56	4	8.5	147	200	4000
4	32	71	19.5	64	6.3	13.2	173	400	3000
5	40	94.5	31	85	6.3	13.2	224	1000	2500
6	62.4	131	44	130	10	21.2	313	2000	2000

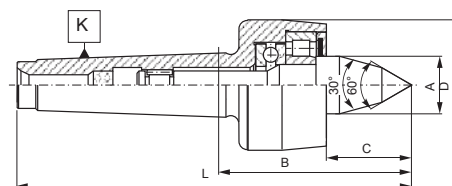
8814 - STANDARD

ECCENTRICITÀ MAX 0.008
MAX ECCENTRICITY 0.008

8814 - PRECISION

ECCENTRICITÀ MAX 0.003
MAX ECCENTRICITY 0.003

CON PUNTA PROLUNGATA
WITH ELONGATED TIP



CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	18	64.5	29.5	40	128.5	230	5000
3	25	88	40.5	56	169	380	4000
4	32	103	51.5	64	205	850	3000
5	40	130	66	85	259	1600	2500
6	62.4	178	92	130	360.5	3150	2000

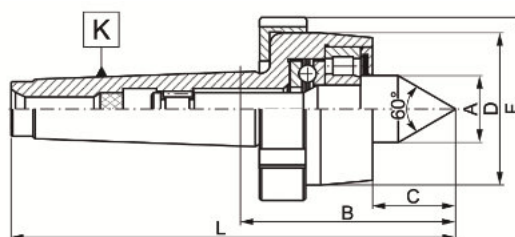
CONTROPUNTE ROTANTI REVOLVING CENTRES

PER APPLICAZIONI PESANTI, CON GHIERA DI ESTRAZIONE
HEAVY DUTY, WITH EXTRACTION RING NUT

8815 - STANDARD

ECCENTRICITÀ MAX 0.008

MAX ECCENTRICITY 0.008



CONO MORSE MORSE TAPER	A	B	C	D	F	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	49.5	17	38	50	103	100	5000
2	18	56.5	21.5	40	52	120.5	180	5000
3	25	75	27.5	56	68	156	450	4000
4	32	85	33.5	64	76	187	1000	3000
5	40	108	44	85	100	237	1900	2500
6	62.4	151.5	64	130	150	333.5	3700	2000

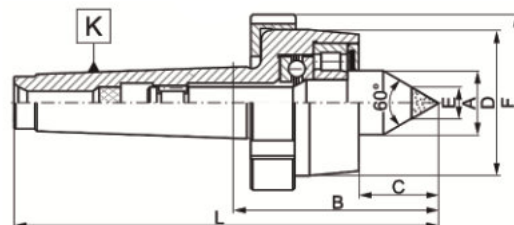
8816 - STANDARD

ECCENTRICITÀ MAX 0.008

MAX ECCENTRICITY 0.008



CON PUNTA IN METALLO DURO
WITH HARDENED METAL TIP



CONO MORSE MORSE TAPER	A	B	C	D	E	F	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	49.5	17	38	50	7	103	60	5000
2	18	56.5	21.5	40	52	7	120.5	120	5000
3	25	75	27.5	56	68	11	156	300	4000
4	32	85	33.5	64	76	14	187	500	3000
5	40	108	44	85	100	18	237	1250	2500
6	62.4	151.5	64	130	150	18	333.5	2000	2000

8816 - PRECISION

ECCENTRICITÀ MAX 0.003

MAX ECCENTRICITY 0.003

CONTROPUNTE ROTANTI REVOLVING CENTRES

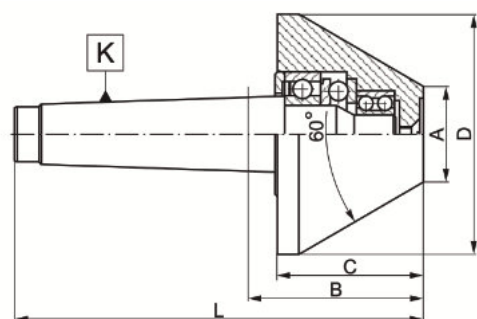
PER TUBI
FOR TUBES



8825

ECCENTRICITÀ MAX 0.008
MAX ECCENTRICITY 0.008

CONO TRONCATO 60°
TRUNCATED 60° POINT



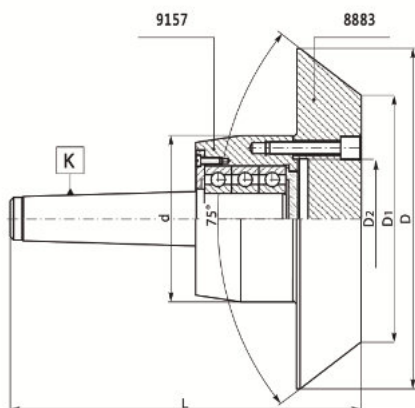
CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO (KG) LOAD (KG)	VELOCITÀ (rpm) SPEED (rpm)
1	20	40.5	35	50	94	100	5000
2	30	41.5	35	60	105.5	180	5000
2	30	59	53	80	123	300	4500
3	30	59	53	80	140	350	4500
3	40	67	61	100	148	550	3000
3	50	76	70	120	157	600	3000
4	40	68.5	61	100	171	600	3000
4	50	77.5	70	120	180	700	3000
4	70	77.5	70	140	180	700	3000
5	50	77.5	70	120	207	750	3000
5	100	77.5	70	170	207	750	2000
6	180	116	107	292	298	2000	1000



8882

ECCENTRICITÀ MAX 0.05
MAX ECCENTRICITY 0.05

CONO TRONCATO 75°
TRUNCATED 75° POINT



CONO MORSE MORSE TAPER	d	D	D ₁	D ₂	L	CARICO (KG) LOAD (KG)	VELOCITÀ (rpm) SPEED (rpm)
3	80	150	95	56	180	700	4000
3	80	200	145	56	180	700	4000
4	100	150	95	70	206	1000	3500
4	100	200	145	70	206	1000	3500
4	100	250	195	70	206	1000	3500
4	125	200	145	95	215	1500	3200
4	125	250	195	95	215	1500	3200
4	125	300	245	95	215	1500	3200
5	125	200	145	95	242	1500	3200
5	125	250	195	95	242	1500	3200
5	125	300	245	95	242	1500	3200
5	160	250	195	125	245	1800	3000
5	160	300	245	125	245	1800	3000

KIT 1 - CONTROPUNTA ROTANTE E CUSPIDI INTERCAMBIABILI

KIT 1 - LIVE CENTRE AND INTERCHANGEABLE INSERTS

8831-KPL

8831



**CONTROPUNTA E
RICAMBI DISPONIBILI
ANCHE SINGOLARMENTE**
CENTRE AND SPARE PARTS
ALSO AVAILABLE INDIVIDUALLY



CONO MORSE DA 2 A 6
MORSE TAPER 2 TO 6

INCLUSO NEL KIT
INCLUDED IN THE KIT

8841



8842



8843



8844



8845



8846



8847



KIT 2 - CONTROPUNTA ROTANTE E CUSPIDI INTERCAMBIABILI

KIT 2 - LIVE CENTRE AND INTERCHANGEABLE INSERTS

8832-KPL

CONO MORSE DA 2 A 6
MORSE TAPER 2 TO 6



8832



**CONTROPUNTA E
RICAMBI DISPONIBILI
ANCHE SINGOLARMENTE**
*CENTRE AND SPARE PARTS
ALSO AVAILABLE INDIVIDUALLY*

INCLUSO NEL KIT
INCLUDED IN THE KIT

8848



8849



8850



8851



8852



8853



8854



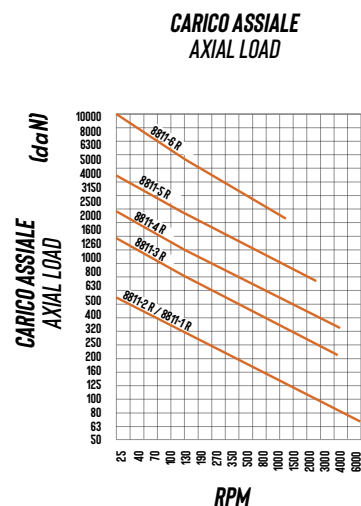
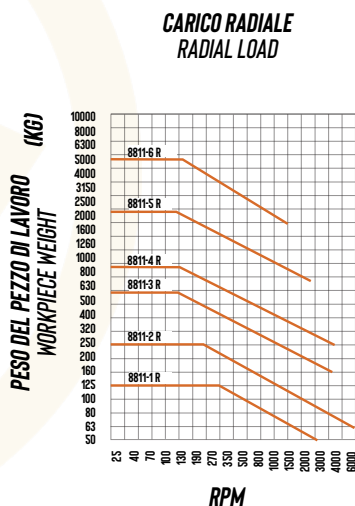
8855



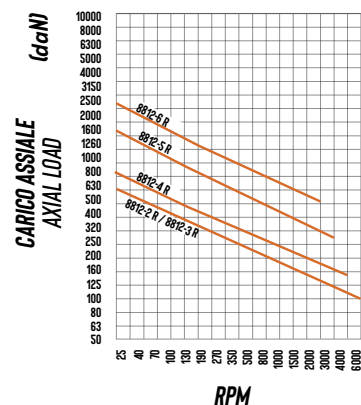
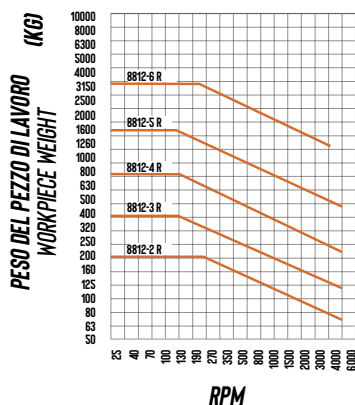
DATI TECNICI TECHNICAL INFO

DURATA DEI CUSCINETTI: 2000 ORE
BEARINGS LIFESPAN: 2000 HOURS

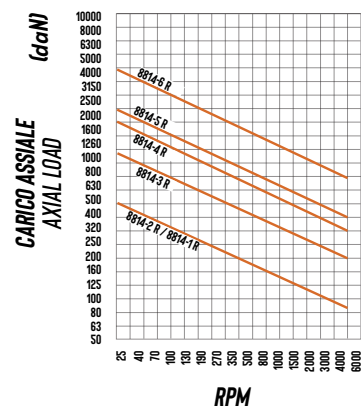
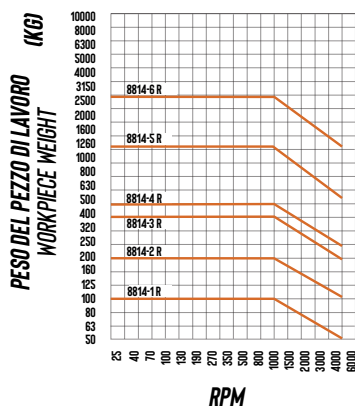
8811 R



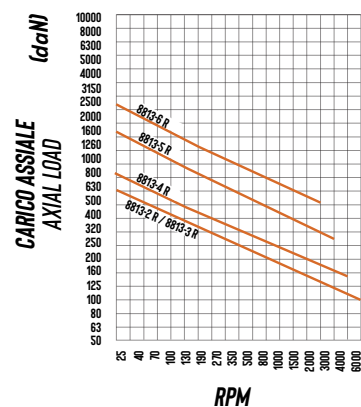
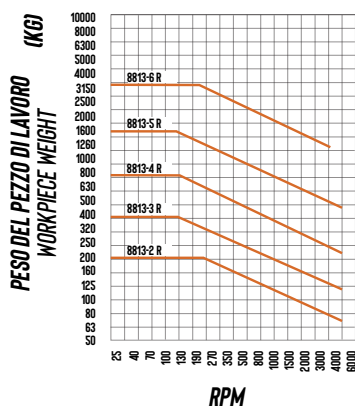
8812 R



8814 R

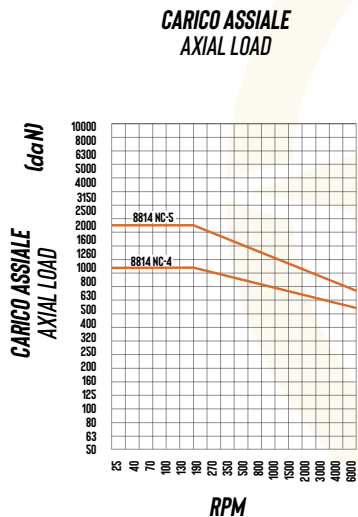
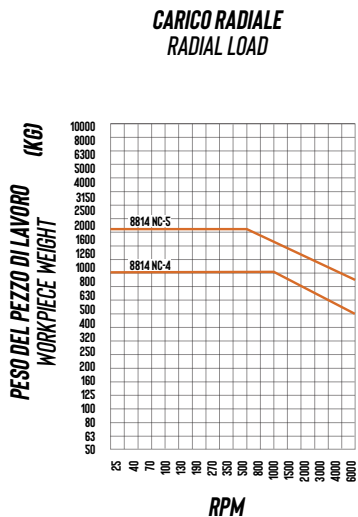


8813 R

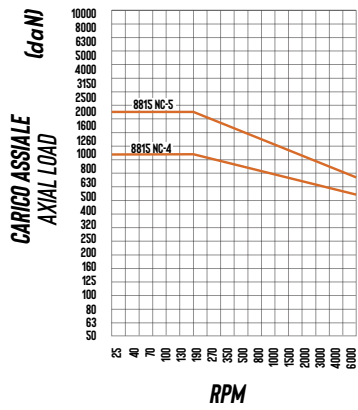
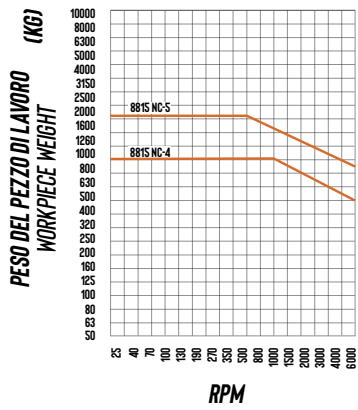


DURATA DEI CUSCINETTI: 2000 ORE
BEARINGS LIFESPAN: 2000 HOURS

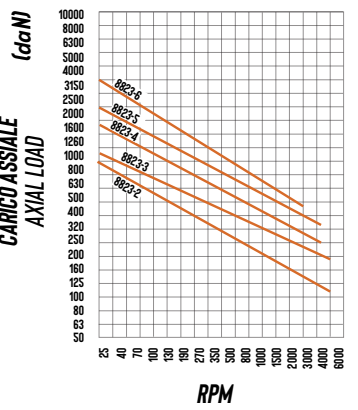
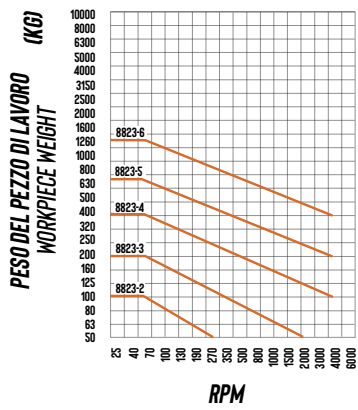
DATI TECNICI TECHNICAL INFO



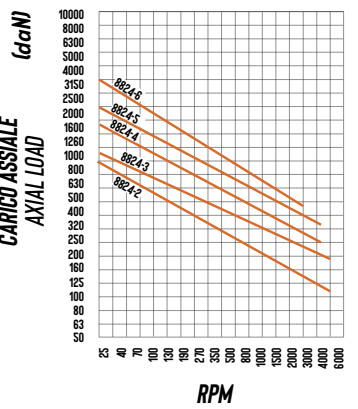
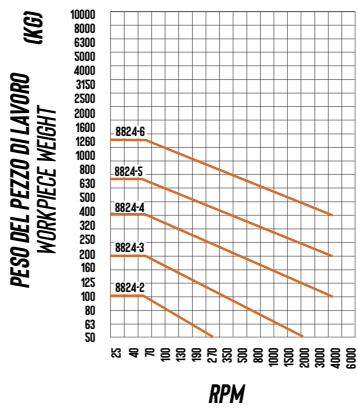
8814 NC



8815 NC



8823



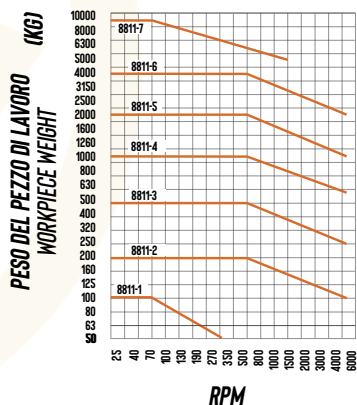
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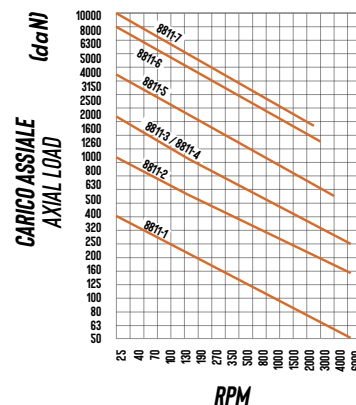
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DURATA DEI CUSCINETTI: 2000 ORE
BEARINGS LIFESPAN: 2000 HOURS

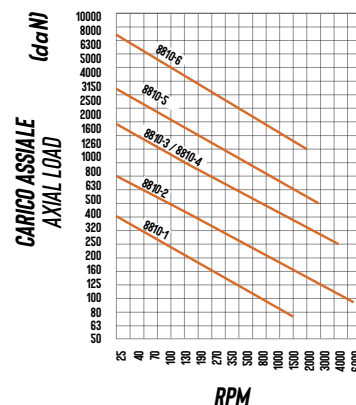
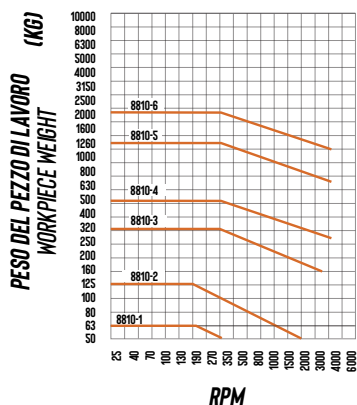
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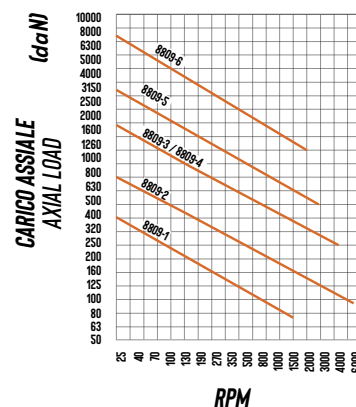
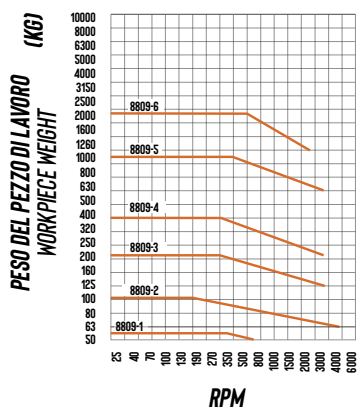
**CARICO ASSIALE
AXIAL LOAD**



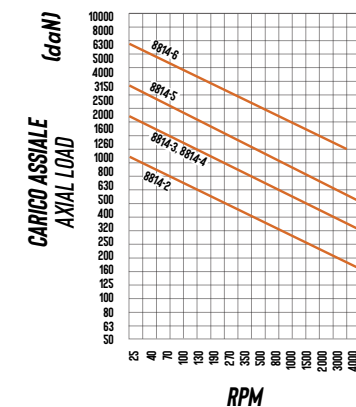
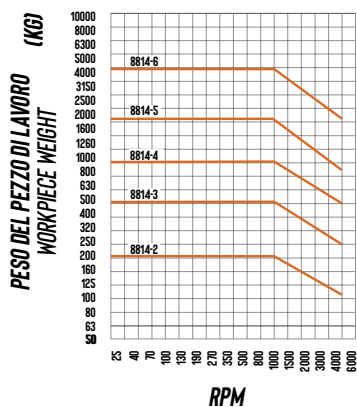
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8809



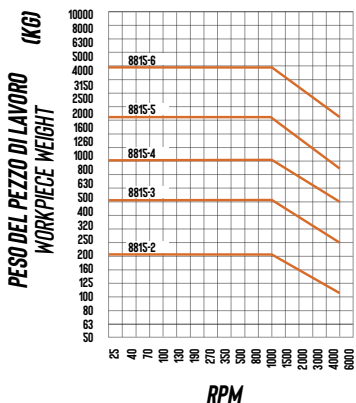
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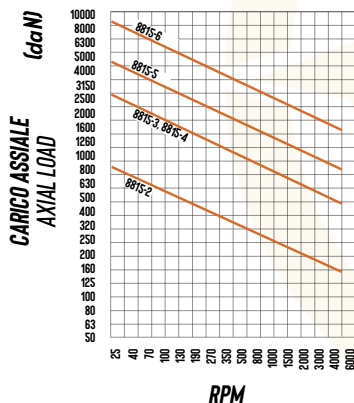
DURATA DEI CUSCINETTI: 2000 ORE
BEARINGS LIFESPAN: 2000 HOURS

DATI TECNICI TECHNICAL INFO

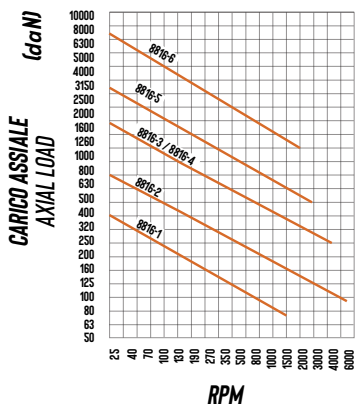
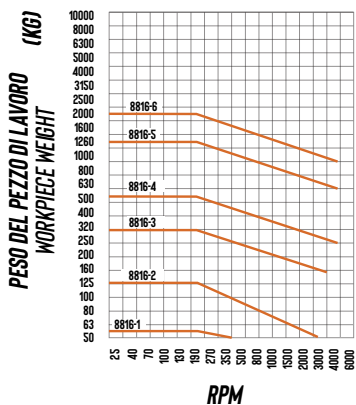
CARICO RADIALE
RADIAL LOAD



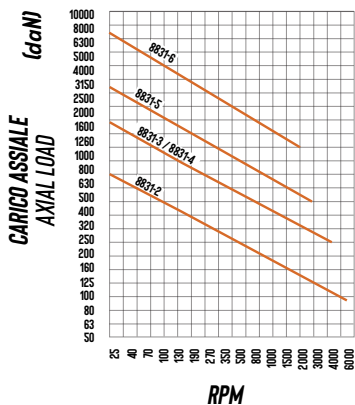
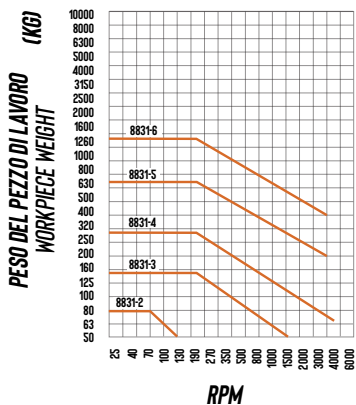
CARICO ASSIALE
AXIAL LOAD



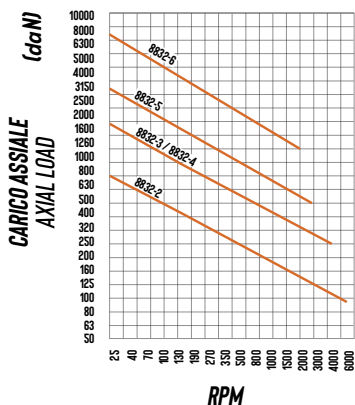
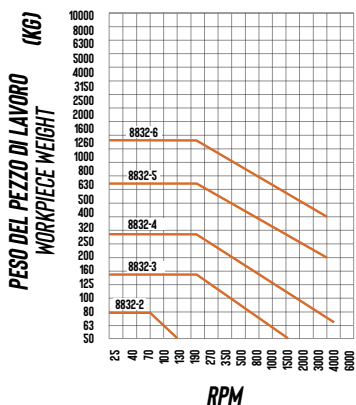
8815



8816



8831



8832

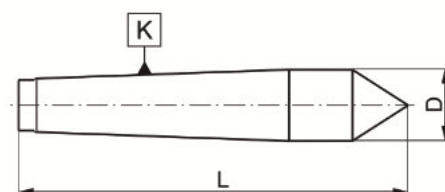


CONTROPUNTE FISSE

FIXED CENTRES

CON CUSPIDE A 60°
WITH 60° TIP

8712

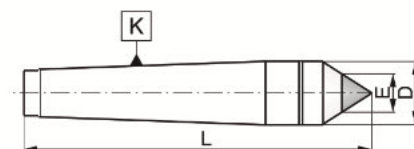


CONO MORSE MORSE TAPER	L	D
0	70	9.2
1	80	12.2
2	100	18
3	125	24.1
4	160	31.6
5	200	44.7
6	270	63.8
7	360	83.5

8711

PUNTA IN METALLO DURO

HARDENED METAL TIP

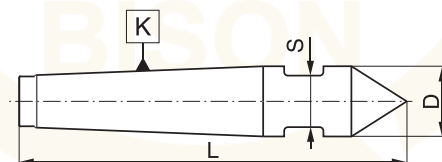


CONO MORSE MORSE TAPER	L	D	E
0	70	9.2	5
1	80	12.2	7
2	100	18	7
3	125	24.1	11
4	160	31.6	14
5	200	44.7	18
6	270	63.8	18

CONTROPUNTE FISSE FIXED CENTRES

CUSPIDE A 60°, CON SEDE CHIAVE
60° TIP, WITH WRENCH SLOT

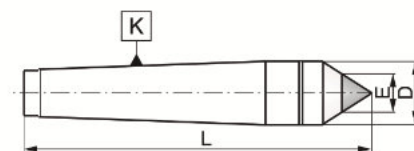
8720



CONO MORSE MORSE TAPER	L	D	S
0	78	9.2	7
1	90	12.2	10
2	112	18	13
3	138	24.1	19
4	175	31.6	24
5	217	44.7	36
6	290	63.8	55

8721

**PUNTA IN METALLO DURO
HARDENED METAL TIP**

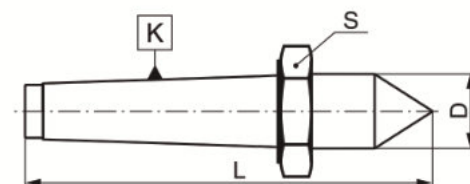


CONO MORSE MORSE TAPER	L	D	E	S
0	78	9.2	5	7
1	90	12.2	7	10
2	112	18	7	13
3	138	24.1	11	19
4	175	31.6	14	24
5	217	44.7	18	36
6	290	63.8	18	55

CONTROPUNTE FISSE FIXED CENTRES

CON CUSPIDE A 60° E GHIERA DI ESTRAZIONE
WITH 60° TIP AND EXTRACTION RING NUT

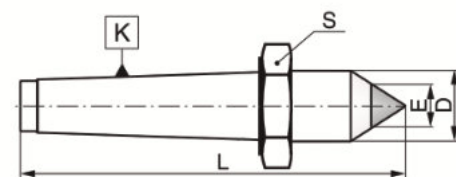
8725



CONO MORSE MORSE TAPER	L	D	S
0	78	9.2	19
1	90	12.2	24
2	112	18	32
3	138	24.1	41
4	175	31.6	55
5	217	44.7	75
6	290	63.8	100

8726

PUNTA IN METALLO DURO
HARDENED METAL TIP

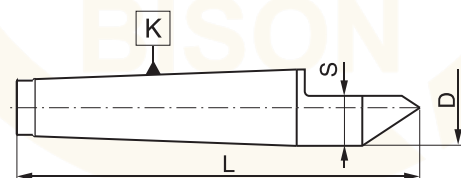


CONO MORSE MORSE TAPER	L	D	E	S
0	78	9.2	5	19
1	90	12.2	7	24
2	112	18	7	32
3	138	24.1	11	41
4	175	31.6	14	55
5	217	44.7	18	75
6	290	63.8	18	100

CONTROPUNTE FISSE FIXED CENTRES

CUSPIDE A 60° SCARICATA
60° HALF TIP

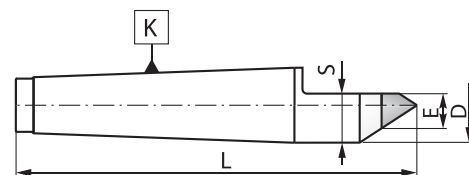
8730



CONO MORSE MORSE TAPER	L	D	S
0	70	9.2	5.6
1	80	12.2	7.6
2	100	18	11
3	125	24.1	15
4	160	31.6	20.8
5	200	44.7	29.3
6	270	63.8	42.6

8731

PUNTA IN METALLO DURO
HARDENED METAL TIP

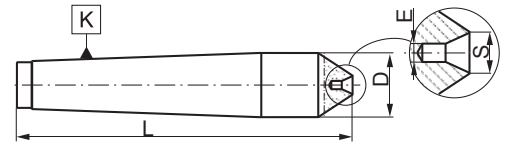


CONO MORSE MORSE TAPER	L	D	E	S
0	70	9.2	5	7.8
1	80	12.2	7	10.3
2	100	18	7	13
3	125	24.1	11	18.3
4	160	31.6	14	23.5
5	200	44.7	18	32
6	270	63.8	18	41.7

CONTROPUNTE FISSE FIXED CENTRES

CUSPIDE A 60° FORATA INTERNAMENTE
60° TIP WITH HOLLOW POINT

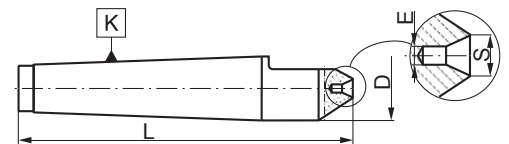
8735



CONO MORSE MORSE TAPER	L	D	E	S
0	66	9.2	1	2.12
1	74	12.2	1.6	3.35
2	94	18	2.5	5.3
3	115	24.1	4	8.5
4	146	31.6	6.3	13.2

8740

CUSPIDE SCARICATA
HALF TIP



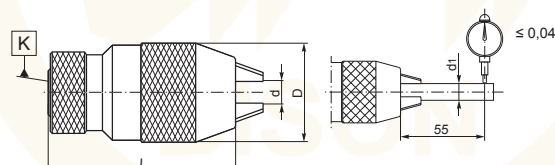
CONO MORSE MORSE TAPER	L	D	E	S
0	66	9.2	1	2.2
1	74	12.2	1.6	3.35
2	94	18	2.5	5.3
3	115	24.1	4	8.5

MANDRINI PORTAPUNTA DRILL CHUCKS

A SERRAGGIO SENZA CHIAVE KEYLESS

5133

PER USO INDUSTRIALE E CNC
FOR INDUSTRIAL AND CNC USE



PRECISION

ECCENTRICITÀ MAX 0.04
MAX ECCENTRICITY 0.04

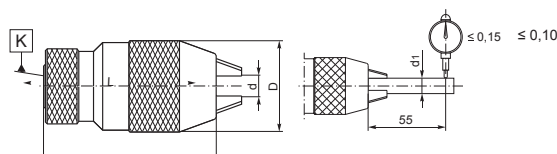
d max	K	CAMPO DI SERRAGGIO CLAMPING RANGE	D	L	d1
10	B12	0.5 - 10	43	84	6; 10
10	J2	0.5 - 10	43	84	6; 11
10	J33	0.5 - 10	43	84	6; 12
13	B12	1 - 13	50	95	6; 13
13	B16	1 - 13	50	95	6; 14
13	J2	1 - 13	50	95	6; 15
13	J6	1 - 13	50	95	6; 16
13	J33	1 - 13	50	95	6; 17
16	B16	3 - 16	58	103	6; 16
16	B18	3 - 16	58	109	6; 17
16	J6	3 - 16	58	103	6; 18
16	J3	3 - 16	58	109	6; 19

STANDARD

ECCENTRICITÀ MAX 0.15
MAX ECCENTRICITY 0.15

5134

PER USO INDUSTRIALE
FOR INDUSTRIAL USE



d max	K	CAMPO DI SERRAGGIO CLAMPING RANGE	D	L	d1
10	B12	0.5 - 10	40	85.5	6; 10
10	B16	0.5 - 10	40	85.5	6; 10
10	1/2" - 20	0.5 - 10	40	94.5	6; 10
13	B12	1 - 13	43	84.5	6; 13
13	B16	1 - 13	43	84.5	6; 13
13	3/8" - 24	1 - 13	43	93.5	6; 13
13	1/2" - 20	1 - 13	43	93.5	6; 13
16	B16	3 - 16	50	94.5	6; 16
16	B18	3 - 16	50	100.5	6; 16
16	1/2" - 20	3 - 16	50	103.5	6; 16
16	5/8" - 16	1 - 13	50	103.5	6; 16

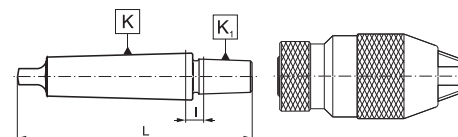
ATTACCHI PER MANDRINO PORTAPUNTA

DRILL CHUCK MANDRELS

CON TENONE
WITH TANG

5361

DIN 238

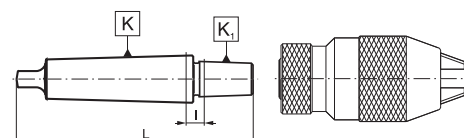


CONO MORSE MORSE TAPER	K ₁ DIN	L	I
1	B10	86	6
1	B12	89	5
1	B16	99	8
1	B18	107	8
1	B18V	97	8
2	B10	105	12
2	B12	106	9
2	B16	112	8
2	B18	119	7
2	B18V	108.5	6.5
2	B22	130	9.5
3	B10	121	9
3	B12	127	11
3	B16	134	11
3	B18	140	9

CONO MORSE MORSE TAPER	K ₁ DIN	L	I
3	B18V	132	11
3	B22	147	17.5
3	B24	157	17.5
4	B12	152.5	13
4	B16	158	11.5
4	B18	166.5	12
4	B18V	159	14.5
4	B22	176	13
4	B24	186	13
5	B12	186.5	15
5	B16	193	14.5
5	B18	200.5	14
5	B18V	191	14.5
5	B22	208.5	13.5
5	B24	221	16

5362

JACOBS



CONO MORSE MORSE TAPER	K ₁ JACOBS	L	I
1	J0	80.5	7.4
1	J1	83.8	5.1
1	J2	90.5	6.3
1	J3	100.5	7.5
1	J33	95	7.6
1	J6	95	7.6
2	J0	95.5	9.5
2	J1	102.5	9.8
2	J2	106	8.8
2	J3	112.5	6.5
2	J33	107	6.6
2	J4	128.5	11.4
2	J6	107	6.6
3	J1	120.5	9.8
3	J2	127	10.8
3	J3	131.5	6.5

CONO MORSE MORSE TAPER	K ₁ JACOBS	L	I
3	J33	126	6.6
3	J4	146	10
3	J5	153	11.4
3	J6	129	9.6
4	J2	151.5	11.8
4	J3	160.5	12
4	J33	155	12
4	J4	170	10.4
4	J5	175.5	10.4
4	J6	155	12
5	J3	193.5	12.5
5	J33	189.5	14.6
5	J4	203.5	11.4
5	J5	209.5	12.4
5	J6	187	12.1

BUSSOLE DI RIDUZIONE REDUCTION SLEEVES

PER UTENSILI CON CONO MORSE
FOR TOOLS WITH MORSE TAPER SHANK

1751

**COMPLETAMENTE TEMPRATA
COMPLETELY HARDENED**



1754

**CON GHIERA DI ESTRAZIONE
WITH EXTRACTION RING NUT**



1752

**TENONE TEMPRATO
HARDENED TANG**



1774

**PER UTENSILI CON FORO FILETTATO
FOR TOOLS WITH DRAWBAR THREAD**



1770

**COMPLETAMENTE TEMPRATA
COMPLETELY HARDENED**



1775

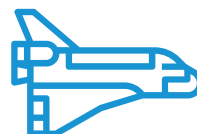
**PER UTENSILI CON TENONE
FOR TOOLS WITH TANG**



APPLICATION



AUTOMOTIVE



**AEROSPACE
INDUSTRY**



**MEDICAL
INDUSTRY**



**MECHANICAL
ENGINEERING**



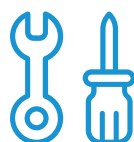
BiSON



**STEEL
CONSTRUCTION**



RAILWAY



**TOOL & MOLD
PRODUCTION**



**POWER
GENERATION**

**PER ULTERIORI INFORMAZIONI SUI PRODOTTI PRESENTI NELLA NOSTRA GAMMA, ED OTTENERE I DISEGNI TECNICI,
VI PREGHIAMO DI RICHIEDERE IL CATALOGO COMPLETO AL VOSTRO REFERENTE BISON DI FIDUCIA.**

**FOR FURTHER INFO REGARDING PRODUCTS IN OUR RANGE, AND TO OBTAIN THE TECHNICAL DRAWINGS,
WE KINDLY ASK YOU TO REQUEST THE COMPLETE CATALOGUE TO YOUR TRUSTED BISON REPRESENTATIVE.**

NOTES



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1 1. MANDRINI MANUALI E AUTOMATICI

2 2. CONTROPUNTE FISSE E ROTANTI

3 3. MORSE E DIVISORI

4 4. MANDRINERIA

BISON