



# 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

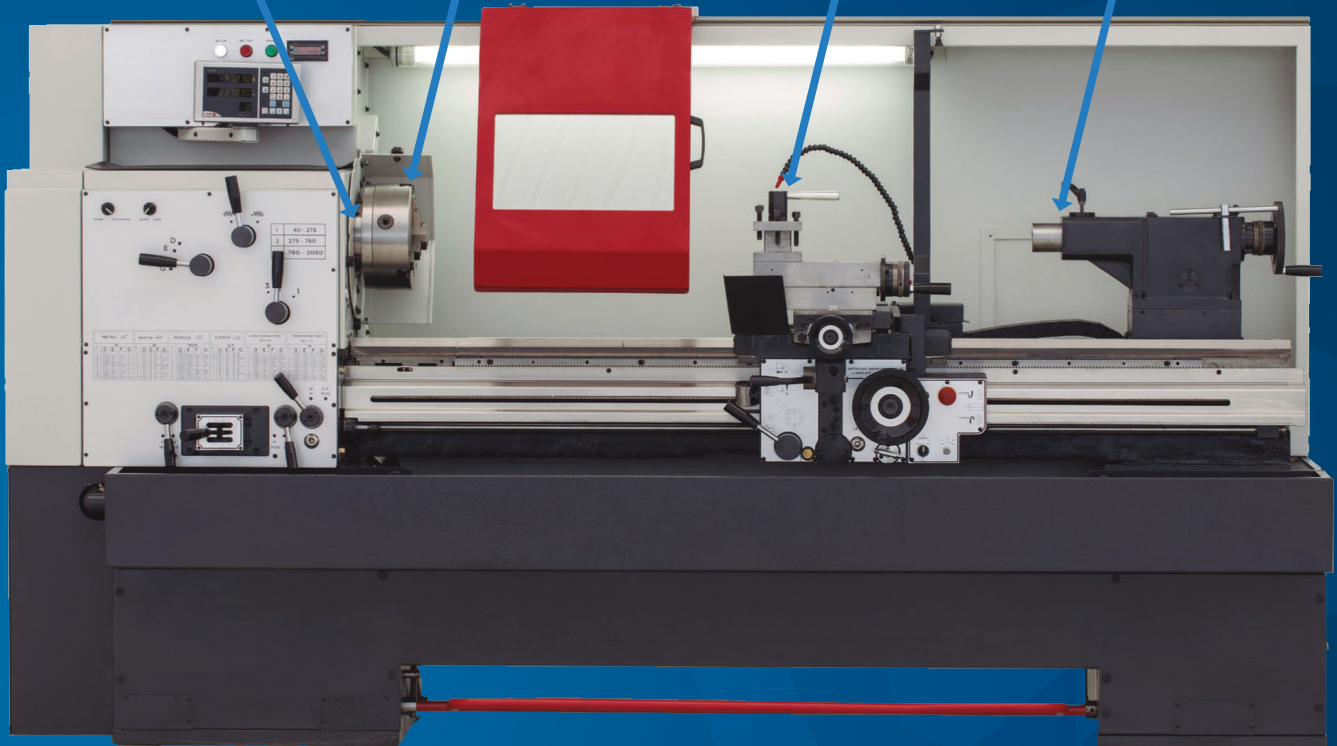
1 **FLANGIA**  
ADAPTER PLATE

**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

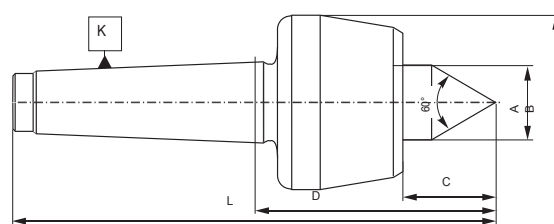
## 8811 R - STANDARD

ECCENTRICITÀ MAX 0.005  
MAX ECCENTRICITY 0.005



## 8811 R - PRECISION

ECCENTRICITÀ MAX 0.003  
MAX ECCENTRICITY 0.003

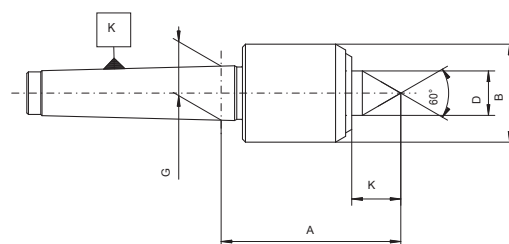


CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	36	17	60.5	114	100	7000
2	20	45	23.5	64.5	128.5	200	7000
3	25	60	30.5	79	160	500	5000
4	32	70	40	101.5	204	800	3800
5	40	90	49.5	128	257.5	2000	3000
6	50	105	57.5	152	334	3500	2600

## 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

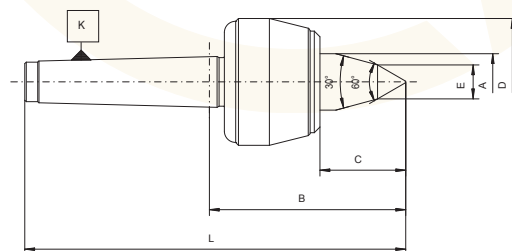


# CONTROPUNTE ROTANTI REVOLVING CENTRES

CON PUNTA PROLUNGATA  
WITH ELONGATED TIP

## 8814 R

ECCENTRICITÀ MAX 0.005  
MAX ECCENTRICITY 0.005

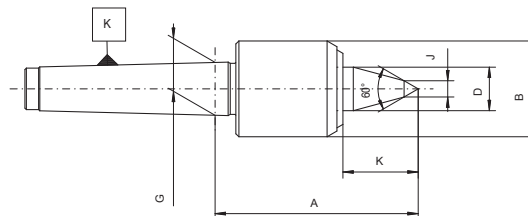


CONO MORSE MORSE TAPER	A	B	C	D	J	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
1	15	66.5	23	36	9	120	80	7000
2	20	74.5	33.5	45	10	138.5	140	7000
3	25	92	43.5	60	12	173	400	5000
4	32	133.5	52	70	14	216	500	3800
5	40	144.3	65.5	90	16	272.8	1200	3000
6	50	170.5	77.5	105	18	352.5	2500	2600

## 8813 R

ECCENTRICITÀ MAX 0.008  
MAX ECCENTRICITY 0.008

CORPO CON DIAMETRO MINORE  
SMALLER BODY DIAMETER



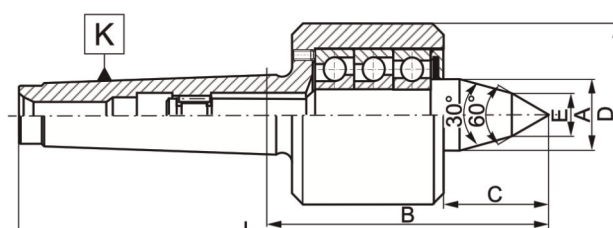
CONO MORSE MORSE TAPER	A	B	C	D	J	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	15	73	29	32	10	137	170	7000
3	15	75	31	31	11	156	340	7000
4	20	88.5	38	38	13	191	700	6300
5	30	120.5	51.5	51.5	14	250	1400	4300
6	42	163.5	71	71	18	346	3000	3000

# 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

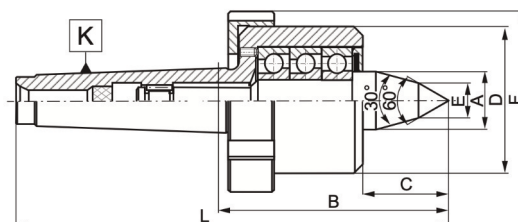
*ECCENTRICITÀ MAX 0.010*  
*MAX ECCENTRICITY 0.010*

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

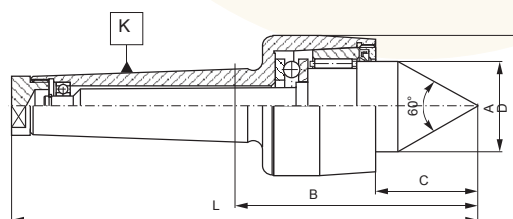
# CONTROPUNTE ROTANTI REVOLVING CENTRES

CON COMPENSAZIONE RADIALE  
WITH RADIAL COMPENSATION

## 8823

**ECCENTRICITÀ MAX 0.003**

MAX ECCENTRICITY 0.003



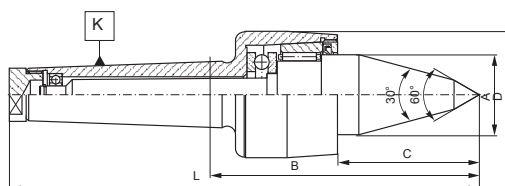
CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO MAX (KG) MAX. LOAD (KG)	VELOCITÀ DI ROTAZIONE (rpm) ROTATION SPEED (rpm)
2	24	73	26.5	44	137.5	100	8000
3	28	85	32.5	48	166	200	6000
4	38	94.5	43.5	60	196.5	400	4500
5	50	116.5	55.5	75	246	650	4000
6	60.5	135	62.5	90	317	1400	3000

## 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

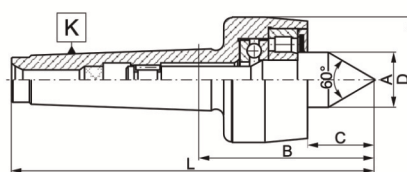
# CONTROPUNTE ROTANTI REVOLVING CENTRES

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

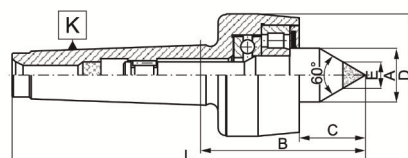
## 8810 - STANDARD

*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

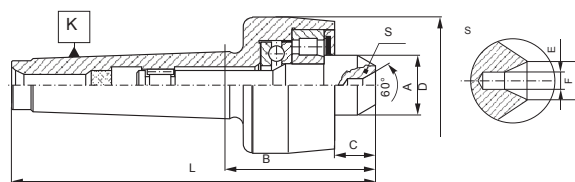
## 8809 - STANDARD

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

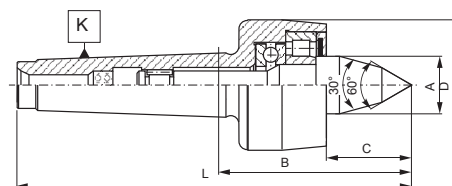
## 8814 - STANDARD

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

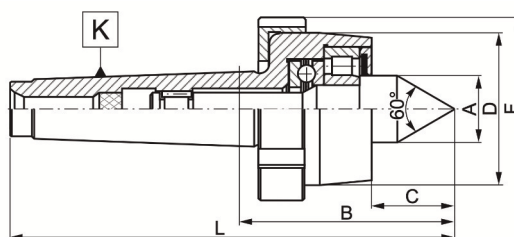
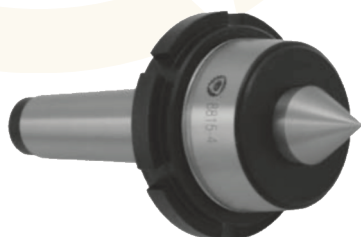
# CONTROPUNTE ROTANTI REVOLVING CENTRES

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

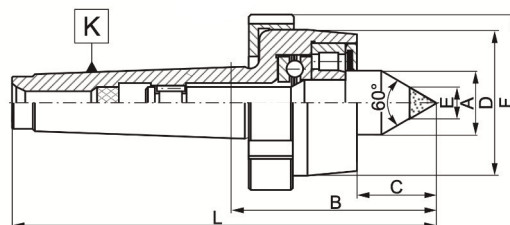
## 8816 - STANDARD

*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

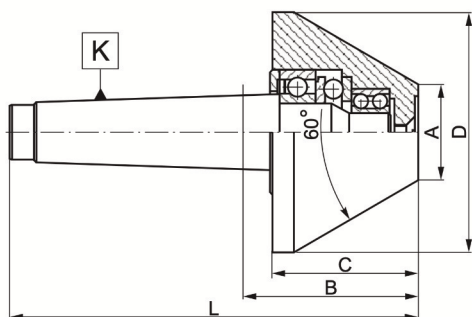
PER TUBI  
FOR TUBES



## 8825

**ECCENTRICITÀ MAX 0.008**  
MAX ECCENTRICITY 0.008

CONO TRONCATO 60°  
TRUNCATED 60° POINT



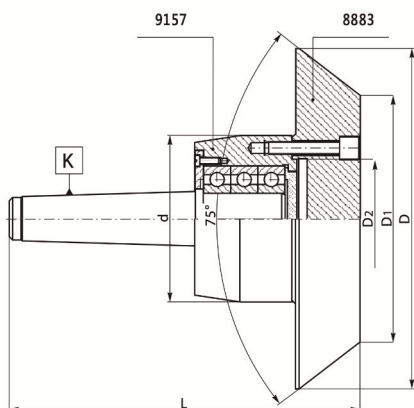
CONO MORSE MORSE TAPER	A	B	C	D	L	CARICO (KG) LOAD (KG)	VELOCITÀ (rpm) SPEED (rpm)
1	20	40.5	35	50	94	100	5000
2	30	41.5	35	60	105.5	180	5000
2	30	59	53	80	123	300	4500
3	30	59	53	80	140	350	4500
3	40	67	61	100	148	550	3000
3	50	76	70	120	157	600	3000
4	40	68.5	61	100	171	600	3000
4	50	77.5	70	120	180	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 <sub>1</sub>	D <sub>2</sub>	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**



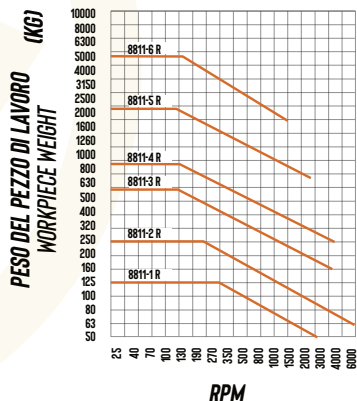
**8855**



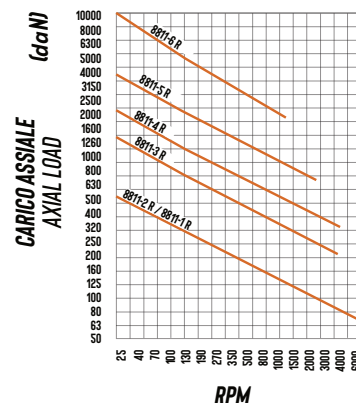
# DATI TECNICI TECHNICAL INFO

DURATA DEI CUSCINETTI: 2000 ORE  
BEARINGS LIFESPAN: 2000 HOURS

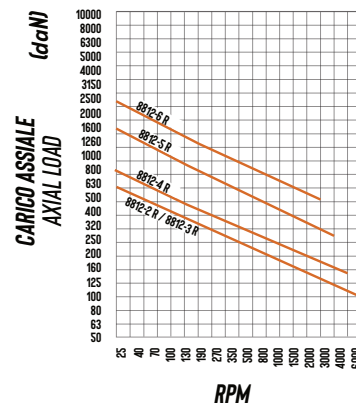
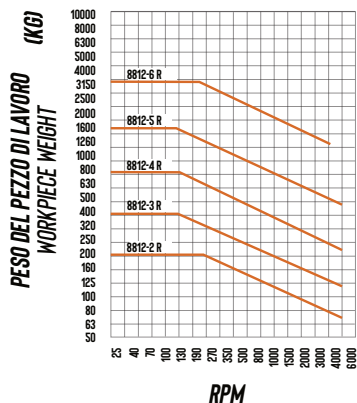
## 8811 R



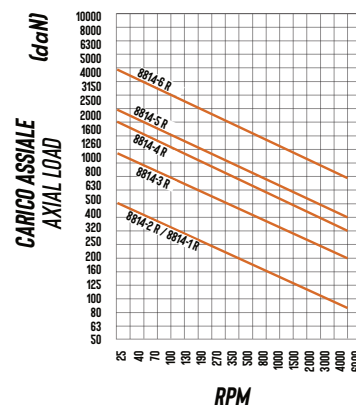
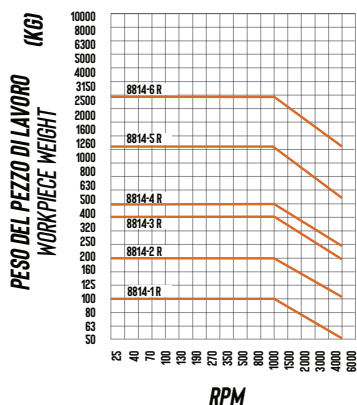
**CARICO ASSIALE  
AXIAL LOAD**



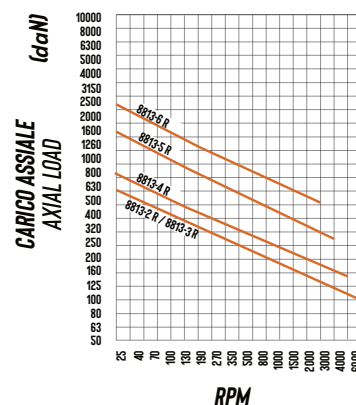
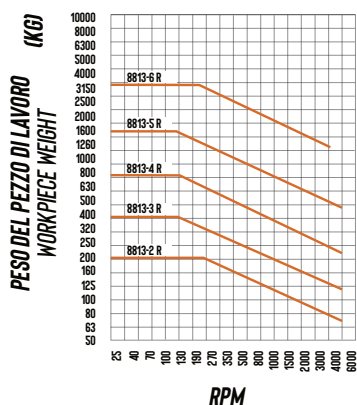
## 8812 R



## 8814 R



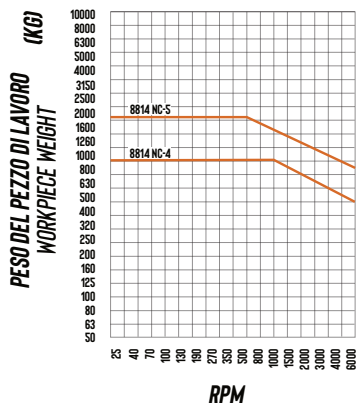
## 8813 R



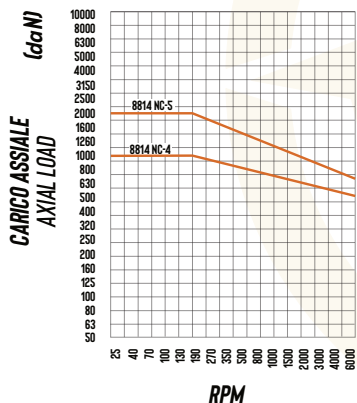
DURATA DEI CUSCINETTI: 2000 ORE  
BEARINGS LIFESPAN: 2000 HOURS

# DATI TECNICI TECHNICAL INFO

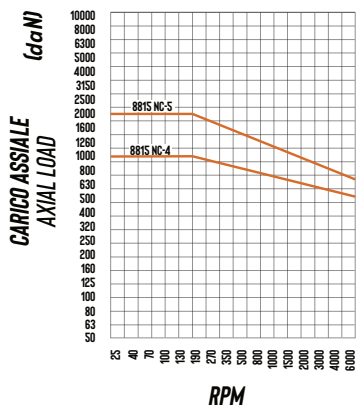
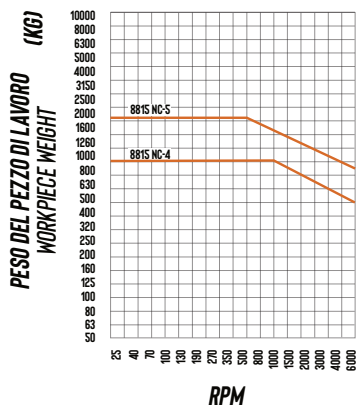
CARICO RADIALE  
RADIAL LOAD



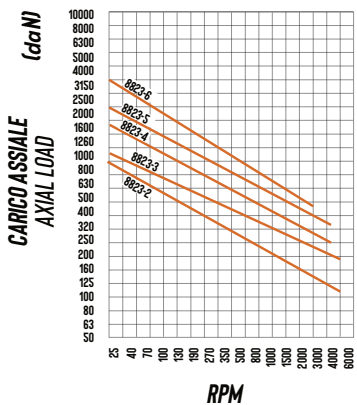
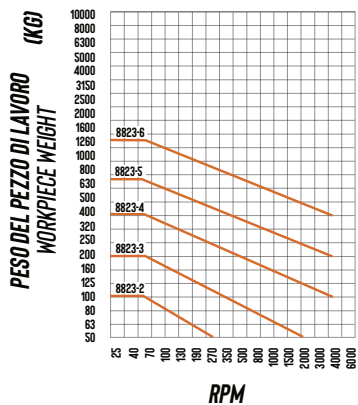
CARICO ASSIALE  
AXIAL LOAD



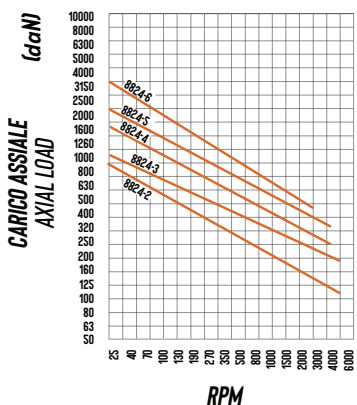
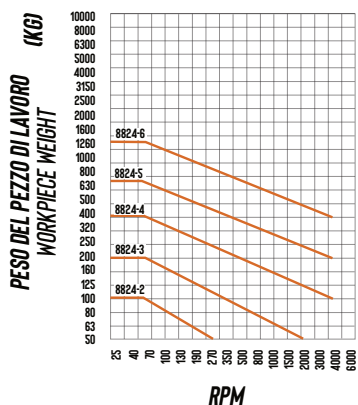
## 8814 NC



## 8815 NC



## 8823



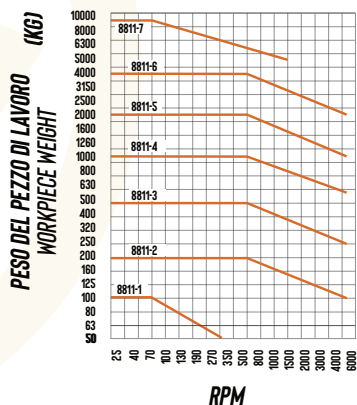
## 8824



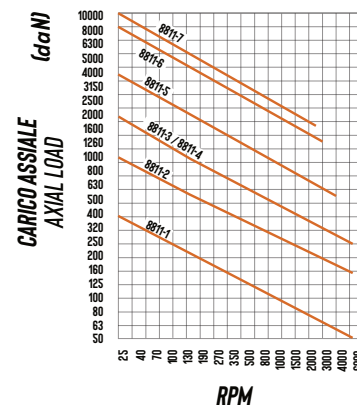
# DATI TECNICI TECHNICAL INFO

DURATA DEI CUSCINETTI: 2000 ORE  
BEARINGS LIFESPAN: 2000 HOURS

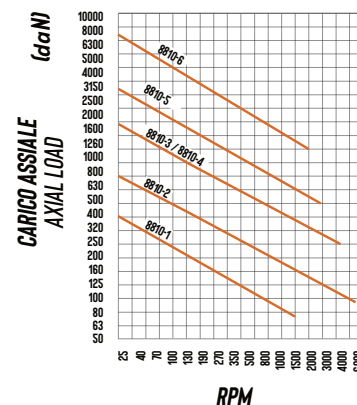
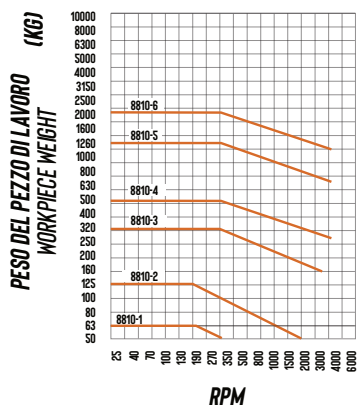
## 8811



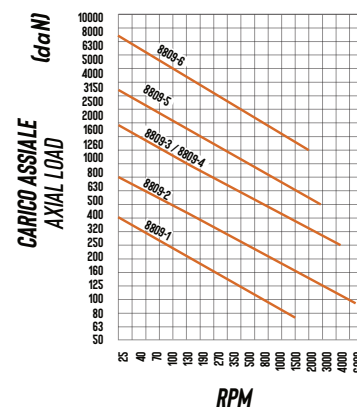
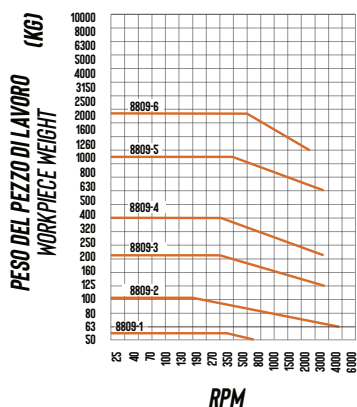
**CARICO ASSIALE  
AXIAL LOAD**



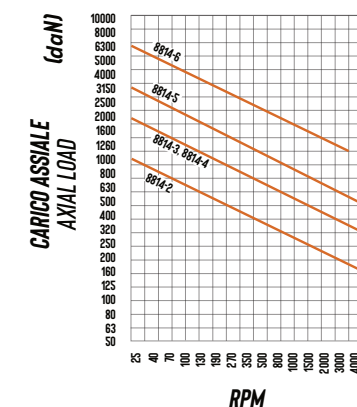
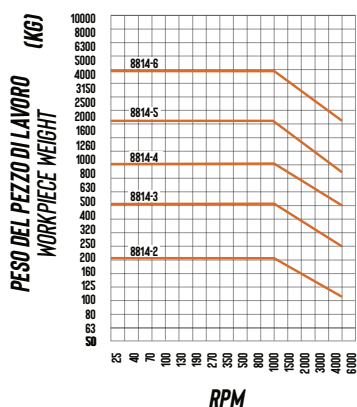
## 8810



## 8809



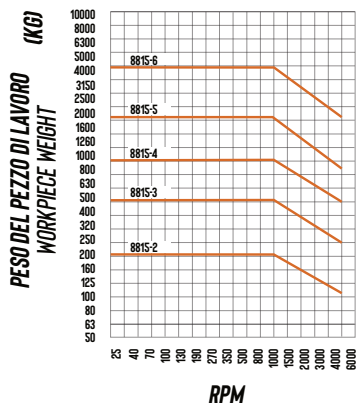
## 8814



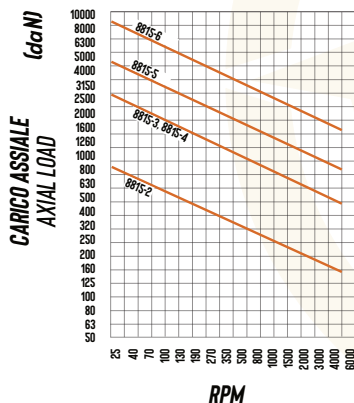
DURATA DEI CUSCINETTI: 2000 ORE  
BEARINGS LIFESPAN: 2000 HOURS

# DATI TECNICI TECHNICAL INFO

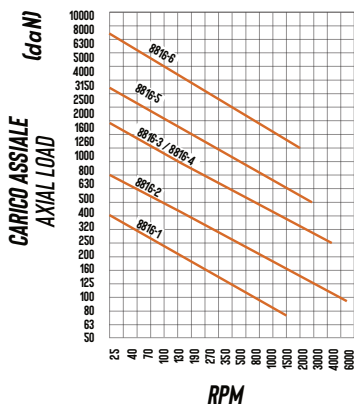
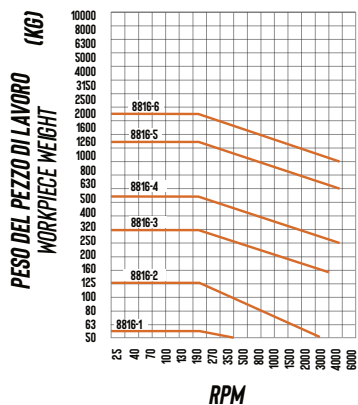
CARICO RADIALE  
RADIAL LOAD



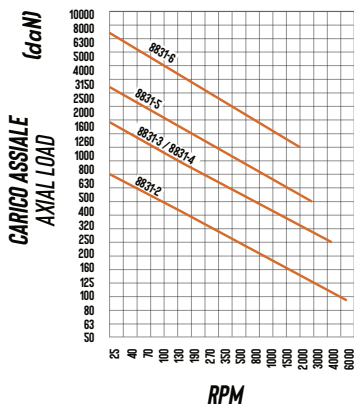
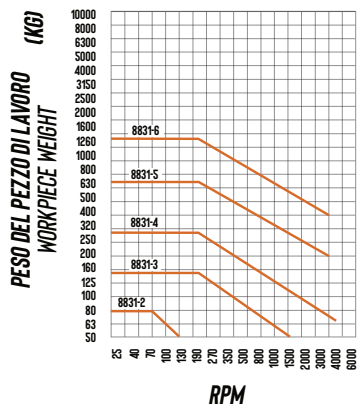
CARICO ASSIALE  
AXIAL LOAD



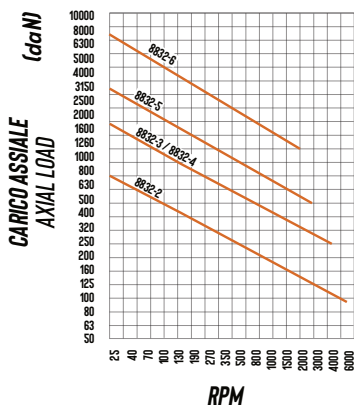
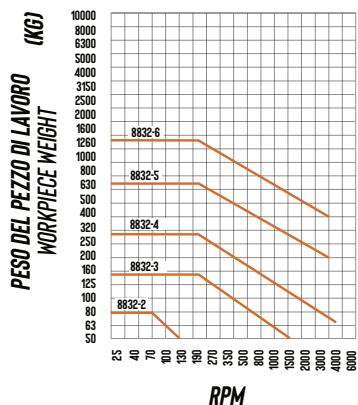
## 8815



## 8816



## 8831



## 8832

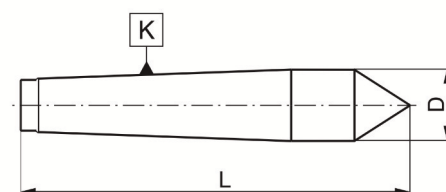


# CONTROPUNTE FISSE

## FIXED CENTRES

CON CUSPIDE A 60°  
WITH 60° TIP

# 8712

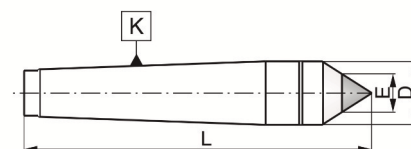


CONO MORSE MORSE TAPER	L	D
0	70	9.2
1	80	12.2
2	100	18
3	125	24.1
4	160	31.6
5	200	44.7
6	270	63.8
7	360	83.5

# 8711

## PUNTA IN METALLO DURO

### HARDENED METAL TIP

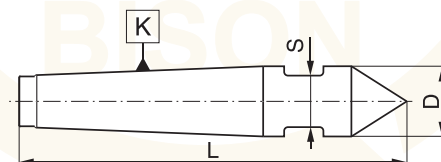


CONO MORSE MORSE TAPER	L	D	E
0	70	9.2	5
1	80	12.2	7
2	100	18	7
3	125	24.1	11
4	160	31.6	14
5	200	44.7	18
6	270	63.8	18

# CONTROPUNTE FISSE FIXED CENTRES

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

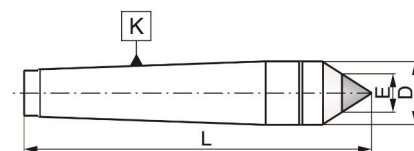
## 8720



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

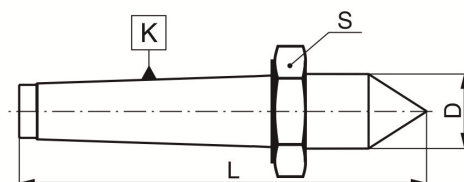


CONO MORSE MORSE TAPER	L	D	E	S
0	78	9.2	5	7
1	90	12.2	7	10
2	112	18	7	13
3	138	24.1	11	19
4	175	31.6	14	24
5	217	44.7	18	36
6	290	63.8	18	55

# CONTROPUNTE FISSE FIXED CENTRES

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

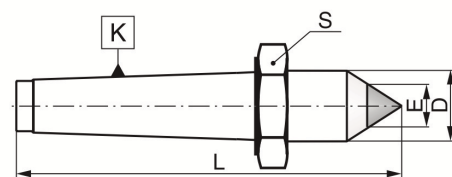
## 8725



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



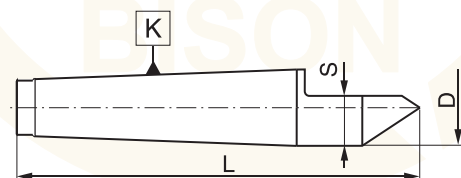
CONO MORSE MORSE TAPER	L	D	E	S
0	78	9.2	5	19
1	90	12.2	7	24
2	112	18	7	32
3	138	24.1	11	41
4	175	31.6	14	55
5	217	44.7	18	75
6	290	63.8	18	100



# CONTROPUNTE FISSE FIXED CENTRES

CUSPIDE A 60° SCARICATA  
60° HALF TIP

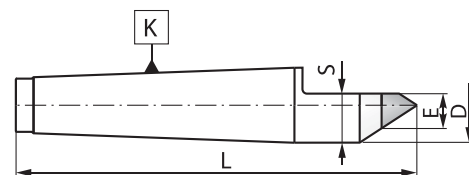
## 8730



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

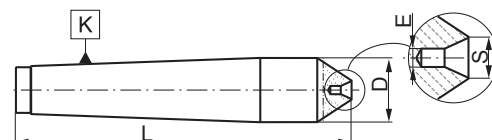


CONO MORSE MORSE TAPER	L	D	E	S
0	70	9.2	5	7.8
1	80	12.2	7	10.3
2	100	18	7	13
3	125	24.1	11	18.3
4	160	31.6	14	23.5
5	200	44.7	18	32
6	270	63.8	18	41.7

# CONTROPUNTE FISSE FIXED CENTRES

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

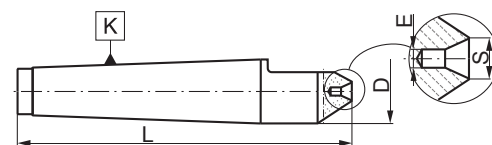
## 8735



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



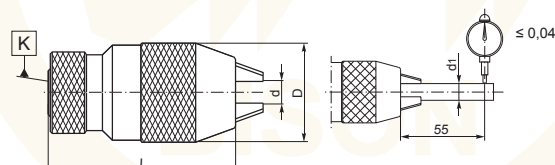
CONO MORSE MORSE TAPER	L	D	E	S
0	66	9.2	1	2.2
1	74	12.2	1.6	3.35
2	94	18	2.5	5.3
3	115	24.1	4	8.5

# 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

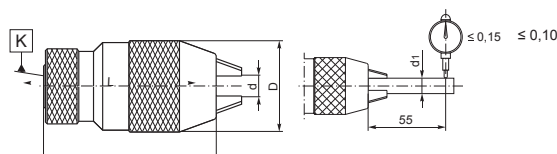
d max	K	CAMPO DI SERRAGGIO CLAMPING RANGE	D	L	d1
10	B12	0.5 - 10	43	84	6; 10
10	J2	0.5 - 10	43	84	6; 11
10	J33	0.5 - 10	43	84	6; 12
13	B12	1 - 13	50	95	6; 13
13	B16	1 - 13	50	95	6; 14
13	J2	1 - 13	50	95	6; 15
13	J6	1 - 13	50	95	6; 16
13	J33	1 - 13	50	95	6; 17
16	B16	3 - 16	58	103	6; 16
16	B18	3 - 16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

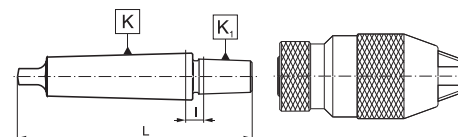
# ATTACCHI PER MANDRINO PORTAPUNTA

## DRILL CHUCK MANDRELS

CON TENONE  
WITH TANG

### 5361

DIN 238

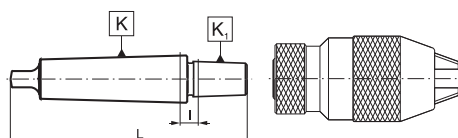


CONO MORSE MORSE TAPER	K <sub>1</sub> DIN	L	I
1	B10	86	6
1	B12	89	5
1	B16	99	8
1	B18	107	8
1	B18V	97	8
2	B10	105	12
2	B12	106	9
2	B16	112	8
2	B18	119	7
2	B18V	108.5	6.5
2	B22	130	9.5
3	B10	121	9
3	B12	127	11
3	B16	134	11
3	B18	140	9

CONO MORSE MORSE TAPER	K <sub>1</sub> 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 <sub>1</sub> 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 <sub>1</sub> 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

BISON

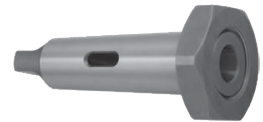
## 1751

**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

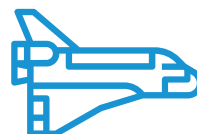
**PER UTENSILI CON TENONE  
FOR TOOLS WITH TANG**



# APPLICATION



**AUTOMOTIVE**



**AEROSPACE  
INDUSTRY**



**MEDICAL  
INDUSTRY**



**MECHANICAL  
ENGINEERING**



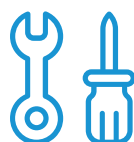
**BiSON**



**STEEL  
CONSTRUCTION**



**RAILWAY**



**TOOL & MOLD  
PRODUCTION**

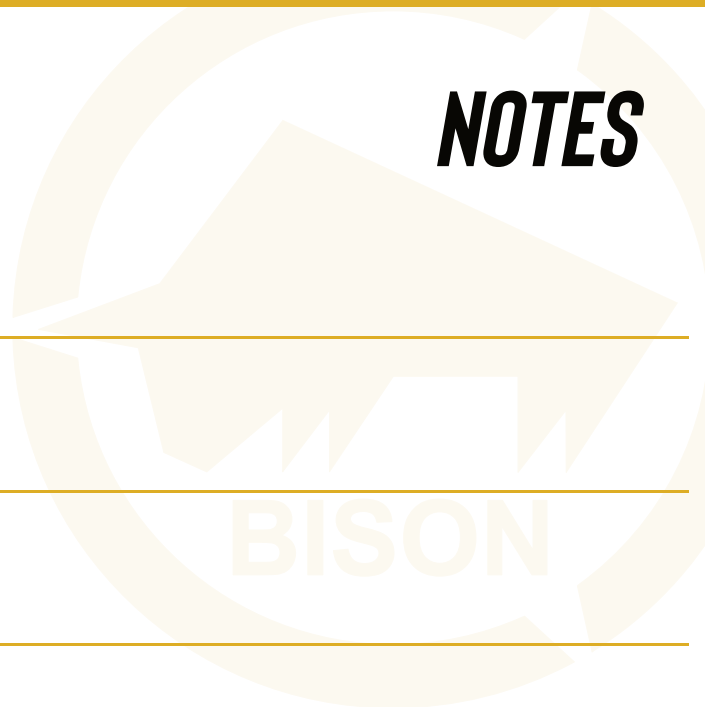


**POWER  
GENERATION**

**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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***TYPOGRAPHICAL OR PRINTING ERRORS ISSUED BY SUBSIDIARIES OF BISON GROUP SHALL BE SUBJECT TO CORRECTION WITHOUT ANY LIABILITY ON THE PART OF THE BISON GROUP.***

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INFO@BISON-BIAL.IT

**1** 1. MANDRINI MANUALI E AUTOMATICI

**2** 2. CONTROPUNTE FISSE E ROTANTI

**3** 3. MORSE E DIVISORI

**4** 4. MANDRINERIA