



>>HSS CUTTING TOOLS 2016



>>HSS CUTTING TOOLS 2016



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PUNTE ELICOIDALI IN HSS, HSS-CO, PREMIUM HSS, HSS-CO, PREMIUM TWIST DRILLS

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PUNTE ELICOIDALI IN HSS, HSS-CO, PREMIUM



HSS, HSS-CO, PREMIUM TWIST DRILLS



HSS, HSS-CO, PREMIUM SPIRALBOHRER



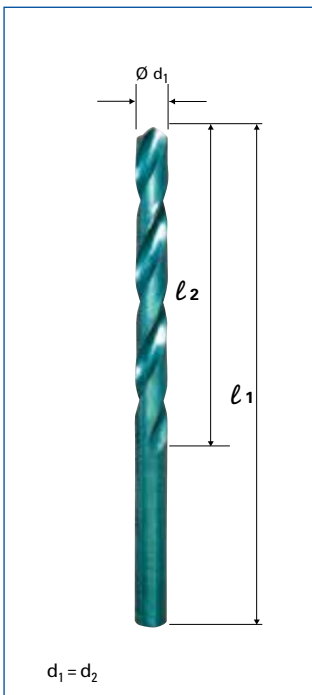
Punte elicoidali cilindriche **Corte**

Straight shank twist drills **Jobber**

Spiralbohrer mit Zylinderschaft **Kurz**

DIN 338
HSS
20°-30°
h8
118°
P. 158

- Applicazioni: - Per forare su acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
 Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
 Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite



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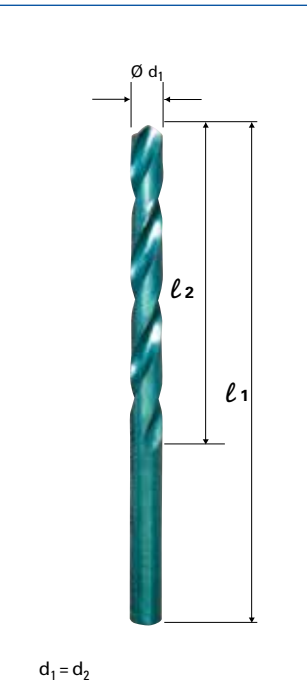
Punte elicoidali cilindriche **Corte**

Straight shank twist drills **Jobber**

Spiralbohrer mit Zylinderschaft **Kurz**

DIN 338
HSS
20°-30°
N
h8
118°
P. 158

Applicazioni: - Per forare su acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
 Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
 Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite



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PRPCN-05,60	5.6	93	57

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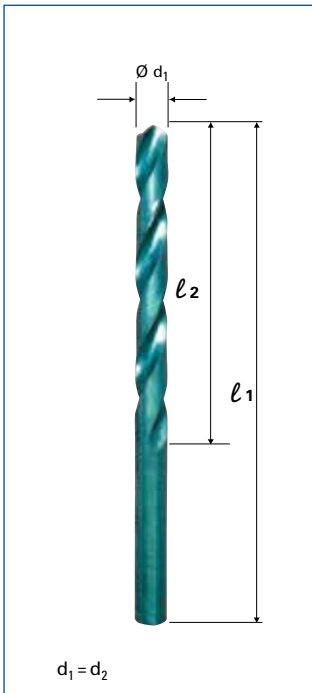
Punte elicoidali cilindriche **Corte**

Straight shank twist drills **Jobber**

Spiralbohrer mit Zylinderschaft **Kurz**

DIN 338
HSS
20°-30°
h8
118°
P. 158

Applicazioni: - Per forare su acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
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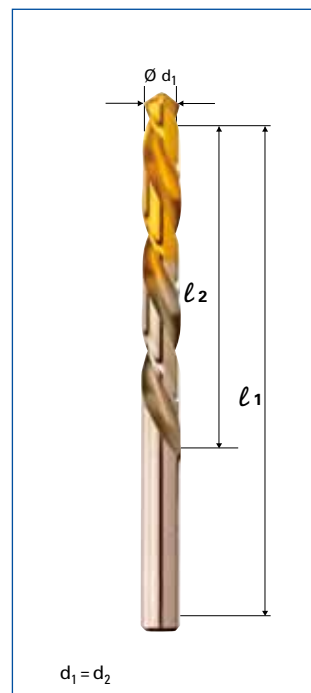
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PRPCN-07,70	7.7	117	75
PRPCN-07,75	7.75	117	75
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PRPCN-10,80	10.8	142	94
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PRPCN-11,10	11.1	142	94
PRPCN-11,20	11.2	142	94
PRPCN-11,25	11.25	142	94
PRPCN-11,30	11.3	142	94
PRPCN-11,40	11.4	142	94
PRPCN-11,50	11.5	142	94
PRPCN-11,60	11.6	142	94
PRPCN-11,70	11.7	142	94
PRPCN-11,75	11.75	142	94

Punte elicoidali cilindriche HSS + TiN Corte

Straight shank twist drill HSS+TiN **Jobber**

Spiralbohrer mit Zylinderschaft HSS+TiN **Kurz**



DIN 338
HSS+TiN
20°-30°
h8
118°
P. 159

Applicazioni: - Per forare acciaio inox, materiali di difficile lavorabilità come titanio e inconel.
 Application: - Drilling in stainless steels, material of difficult machinability such as titanium and inconel.
 Verwendung: - Zum bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.

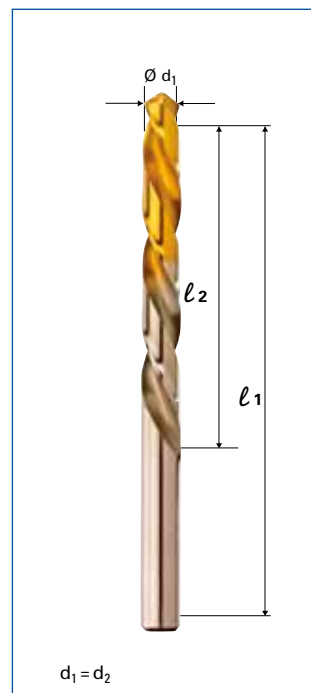
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PRPCNT-01,10	1.1	14	36
PRPCNT-01,20	1.2	16	38
PRPCNT-01,30	1.3	16	38
PRPCNT-01,40	1.4	18	40
PRPCNT-01,50	1.5	18	40
PRPCNT-01,60	1.6	20	43
PRPCNT-01,70	1.7	20	43
PRPCNT-01,80	1.8	22	46
PRPCNT-01,90	1.9	22	46
PRPCNT-02,00	2	24	49
PRPCNT-02,10	2.1	24	49
PRPCNT-02,20	2.2	27	53
PRPCNT-02,30	2.3	27	53
PRPCNT-02,40	2.4	30	57
PRPCNT-02,50	2.5	30	57
PRPCNT-02,60	2.6	30	57
PRPCNT-02,70	2.7	33	61
PRPCNT-02,80	2.8	33	61
PRPCNT-02,90	2.9	33	61
PRPCNT-03,00	3	33	61
PRPCNT-03,10	3.1	36	65
PRPCNT-03,20	3.2	36	65
PRPCNT-03,30	3.3	36	65
PRPCNT-03,40	3.4	39	70
PRPCNT-03,50	3.5	39	70
PRPCNT-03,60	3.6	39	70
PRPCNT-03,70	3.7	39	70
PRPCNT-03,80	3.8	43	75
PRPCNT-03,90	3.9	43	75
PRPCNT-04,00	4	43	75
PRPCNT-04,10	4.1	43	75
PRPCNT-04,20	4.2	43	75
PRPCNT-04,30	4.3	47	80
PRPCNT-04,40	4.4	47	80
PRPCNT-04,50	4.5	47	80
PRPCNT-04,60	4.6	47	80
PRPCNT-04,70	4.7	47	80
PRPCNT-04,80	4.8	52	86
PRPCNT-04,90	4.9	52	86

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNT-05,00	5	52	86
PRPCNT-05,10	5.1	52	86
PRPCNT-05,20	5.2	52	86
PRPCNT-05,30	5.3	52	86
PRPCNT-05,40	5.4	57	93
PRPCNT-05,50	5.5	57	93
PRPCNT-05,60	5.6	57	93
PRPCNT-05,70	5.7	57	93
PRPCNT-05,80	5.8	57	93
PRPCNT-05,90	5.9	57	93
PRPCNT-06,00	6	57	93
PRPCNT-06,10	6.1	63	101
PRPCNT-06,20	6.2	63	101
PRPCNT-06,30	6.3	63	101
PRPCNT-06,40	6.4	63	101
PRPCNT-06,50	6.5	63	101
PRPCNT-06,60	6.6	63	101
PRPCNT-06,70	6.7	63	101
PRPCNT-06,80	6.8	69	109
PRPCNT-06,90	6.9	69	109
PRPCNT-07,00	7	69	109
PRPCNT-07,10	7.1	69	109
PRPCNT-07,20	7.2	69	109
PRPCNT-07,30	7.3	69	109
PRPCNT-07,40	7.4	69	109
PRPCNT-07,50	7.5	69	109
PRPCNT-07,60	7.6	75	117
PRPCNT-07,70	7.7	75	117
PRPCNT-07,80	7.8	75	117
PRPCNT-07,90	7.9	75	117
PRPCNT-08,00	8	75	117
PRPCNT-08,10	8.1	75	117
PRPCNT-08,20	8.2	75	117
PRPCNT-08,30	8.3	75	117
PRPCNT-08,40	8.4	75	117
PRPCNT-08,50	8.5	75	117
PRPCNT-08,60	8.6	81	125
PRPCNT-08,70	8.7	81	125
PRPCNT-08,80	8.8	81	125
PRPCNT-08,90	8.9	81	125

Punte elicoidali cilindriche HSS + TiN Corte

Straight shank twist drill HSS+TiN **Jobber**

Spiralbohrer mit Zylinderschaft HSS+TiN **Kurz**



DIN 338
HSS+TiN
20°-30°
N
h8
118°
P. 159

Applicazioni: - Per forare acciaio inox, materiali di difficile lavorabilità come titanio e inconel.
 Application: - Drilling in stainless steels, material of difficult machinability such as titanium and inconel.
 Verwendung: - Zum bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNT-09,00	9	81	125
PRPCNT-09,10	9.1	81	125
PRPCNT-09,20	9.2	81	125
PRPCNT-09,30	9.3	81	125
PRPCNT-09,40	9.4	81	125
PRPCNT-09,50	9.5	81	125
PRPCNT-09,60	9.6	87	133
PRPCNT-09,70	9.7	87	133
PRPCNT-09,80	9.8	87	133
PRPCNT-09,90	9.9	87	133
PRPCNT-10,00	10	87	133
PRPCNT-10,10	10.1	87	133
PRPCNT-10,20	10.2	87	133
PRPCNT-10,30	10.3	87	133
PRPCNT-10,40	10.4	87	133
PRPCNT-10,50	10.5	87	133
PRPCNT-10,60	10.6	87	133
PRPCNT-10,70	10.7	94	142
PRPCNT-10,80	10.8	94	142
PRPCNT-10,90	10.9	94	142

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNT-11,00	11	94	142
PRPCNT-11,10	11.1	94	142
PRPCNT-11,20	11.2	94	142
PRPCNT-11,30	11.3	94	142
PRPCNT-11,40	11.4	94	142
PRPCNT-11,50	11.5	94	142
PRPCNT-11,60	11.6	94	142
PRPCNT-11,70	11.7	94	142
PRPCNT-11,80	11.8	94	142
PRPCNT-11,90	11.9	101	151
PRPCNT-12,00	12	101	151
PRPCNT-12,10	12.1	101	151
PRPCNT-12,20	12.2	101	151
PRPCNT-12,30	12.3	101	151
PRPCNT-12,40	12.4	101	151
PRPCNT-12,50	12.5	101	151
PRPCNT-12,60	12.6	101	151
PRPCNT-12,70	12.7	101	151
PRPCNT-12,80	12.8	101	151
PRPCNT-12,90	12.9	101	151
PRPCNT-13,00	13	101	151

Set Punte in scatola HSS + TiN

Codice	Set progressione
PRPCNT-S1	D. 1-10 X 0,5 mm 19 pz.
PRPCNT-S2	D. 1-13 X 0,5 mm 25 pz.
PRPCNT-S4	D. 1-5,9 X 0,1 mm 50 pz.
PRPCNT-S5	D. 6-10 X 0,1 mm 41 pz.



Set Punte senza scatola HSS + TiN

Codice	Set progressione
PRPCNT-S6	D. 1-10 X 0,1 mm 91 pz.

Punte elicoidali cilindriche HSS-C08 + TiN Corte

Straight shank twist drill HSS-C08+TiN **Jobber**

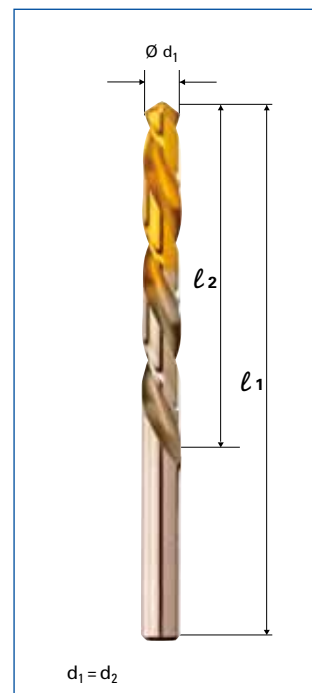
Spiralbohrer mit Zylinderschaft HSS-C08+TiN **Kurz**

DIN 338
HSS-C08 + TiN
N 20°-30°
h8
135°
P. 160

 sotto 2 mm
 under 2 mm
 unter 2 mm

 2 mm e oltre
 2 mm & over
 2 mm & über

Applicazioni: - Per forare acciaio inox, materiali di difficile lavorabilità come titanio e inconfel.
 Application: - Drilling in stainless steels, material of difficult machinability such as titanium and inconfel.
 Verwendung: - Zum bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconfel.



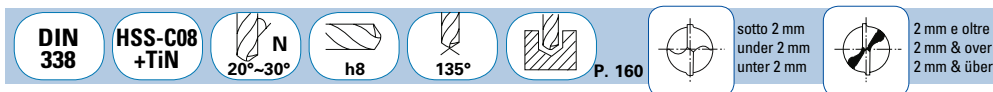
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNCT-01,00	1	12	34
PRPCNCT-01,10	1.1	14	36
PRPCNCT-01,20	1.2	16	38
PRPCNCT-01,30	1.3	16	38
PRPCNCT-01,40	1.4	18	40
PRPCNCT-01,50	1.5	18	40
PRPCNCT-01,60	1.6	20	43
PRPCNCT-01,70	1.7	20	43
PRPCNCT-01,80	1.8	22	46
PRPCNCT-01,90	1.9	22	46
PRPCNCT-02,00	2	24	49
PRPCNCT-02,10	2.1	24	49
PRPCNCT-02,20	2.2	27	53
PRPCNCT-02,30	2.3	27	53
PRPCNCT-02,40	2.4	30	57
PRPCNCT-02,50	2.5	30	57
PRPCNCT-02,60	2.6	30	57
PRPCNCT-02,70	2.7	33	61
PRPCNCT-02,80	2.8	33	61
PRPCNCT-02,90	2.9	33	61
PRPCNCT-03,00	3	33	61
PRPCNCT-03,10	3.1	36	65
PRPCNCT-03,20	3.2	36	65
PRPCNCT-03,30	3.3	36	65
PRPCNCT-03,40	3.4	39	70
PRPCNCT-03,50	3.5	39	70
PRPCNCT-03,60	3.6	39	70
PRPCNCT-03,70	3.7	39	70
PRPCNCT-03,80	3.8	43	75
PRPCNCT-03,90	3.9	43	75
PRPCNCT-04,00	4	43	75
PRPCNCT-04,10	4.1	43	75
PRPCNCT-04,20	4.2	43	75
PRPCNCT-04,30	4.3	47	80
PRPCNCT-04,40	4.4	47	80
PRPCNCT-04,50	4.5	47	80
PRPCNCT-04,60	4.6	47	80
PRPCNCT-04,70	4.7	47	80
PRPCNCT-04,80	4.8	52	86
PRPCNCT-04,90	4.9	52	86

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNCT-05,00	5	52	86
PRPCNCT-05,10	5.1	52	86
PRPCNCT-05,20	5.2	52	86
PRPCNCT-05,30	5.3	52	86
PRPCNCT-05,40	5.4	57	93
PRPCNCT-05,50	5.5	57	93
PRPCNCT-05,60	5.6	57	93
PRPCNCT-05,70	5.7	57	93
PRPCNCT-05,80	5.8	57	93
PRPCNCT-05,90	5.9	57	93
PRPCNCT-06,00	6	57	93
PRPCNCT-06,10	6.1	63	101
PRPCNCT-06,20	6.2	63	101
PRPCNCT-06,30	6.3	63	101
PRPCNCT-06,40	6.4	63	101
PRPCNCT-06,50	6.5	63	101
PRPCNCT-06,60	6.6	63	101
PRPCNCT-06,70	6.7	63	101
PRPCNCT-06,80	6.8	69	109
PRPCNCT-06,90	6.9	69	109
PRPCNCT-07,00	7	69	109
PRPCNCT-07,10	7.1	69	109
PRPCNCT-07,20	7.2	69	109
PRPCNCT-07,30	7.3	69	109
PRPCNCT-07,40	7.4	69	109
PRPCNCT-07,50	7.5	69	109
PRPCNCT-07,60	7.6	75	117
PRPCNCT-07,70	7.7	75	117
PRPCNCT-07,80	7.8	75	117
PRPCNCT-07,90	7.9	75	117
PRPCNCT-08,00	8	75	117
PRPCNCT-08,10	8.1	75	117
PRPCNCT-08,20	8.2	75	117
PRPCNCT-08,30	8.3	75	117
PRPCNCT-08,40	8.4	75	117
PRPCNCT-08,50	8.5	75	117
PRPCNCT-08,60	8.6	81	125
PRPCNCT-08,70	8.7	81	125
PRPCNCT-08,80	8.8	81	125
PRPCNCT-08,90	8.9	81	125

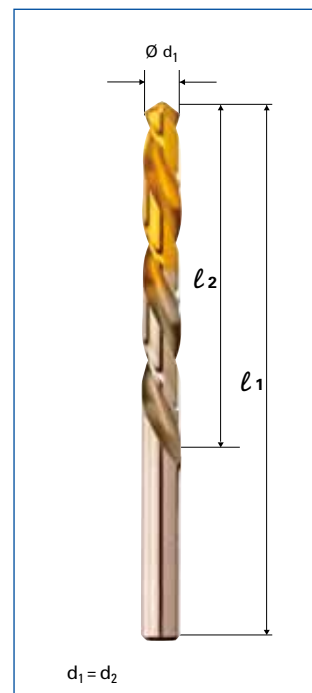
Punte elicoidali cilindriche HSS-C08 + TiN Corte

Straight shank twist drill HSS-C08+TiN **Jobber**

Spiralbohrer mit Zylinderschaft HSS-C08+TiN **Kurz**



Applicazioni: - Per forare acciaio inox, materiali di difficile lavorabilità come titanio e inconel.
 Application: - Drilling in stainless steels, material of difficult machinability such as titanium and inconel.
 Verwendung: - Zum bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNCT-09,00	9	81	125
PRPCNCT-09,10	9.1	81	125
PRPCNCT-09,20	9.2	81	125
PRPCNCT-09,30	9.3	81	125
PRPCNCT-09,40	9.4	81	125
PRPCNCT-09,50	9.5	81	125
PRPCNCT-09,60	9.6	87	133
PRPCNCT-09,70	9.7	87	133
PRPCNCT-09,80	9.8	87	133
PRPCNCT-09,90	9.9	87	133
PRPCNCT-10,00	10	87	133
PRPCNCT-10,10	10.1	87	133
PRPCNCT-10,20	10.2	87	133
PRPCNCT-10,30	10.3	87	133
PRPCNCT-10,40	10.4	87	133
PRPCNCT-10,50	10.5	87	133
PRPCNCT-10,60	10.6	87	133
PRPCNCT-10,70	10.7	94	142
PRPCNCT-10,80	10.8	94	142
PRPCNCT-10,90	10.9	94	142

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNCT-11,00	11	94	142
PRPCNCT-11,10	11.1	94	142
PRPCNCT-11,20	11.2	94	142
PRPCNCT-11,30	11.3	94	142
PRPCNCT-11,40	11.4	94	142
PRPCNCT-11,50	11.5	94	142
PRPCNCT-11,60	11.6	94	142
PRPCNCT-11,70	11.7	94	142
PRPCNCT-11,80	11.8	94	142
PRPCNCT-11,90	11.9	101	151
PRPCNCT-12,00	12	101	151
PRPCNCT-12,10	12.1	101	151
PRPCNCT-12,20	12.2	101	151
PRPCNCT-12,30	12.3	101	151
PRPCNCT-12,40	12.4	101	151
PRPCNCT-12,50	12.5	101	151
PRPCNCT-12,60	12.6	101	151
PRPCNCT-12,70	12.7	101	151
PRPCNCT-12,80	12.8	101	151
PRPCNCT-12,90	12.9	101	151
PRPCNCT-13,00	13	101	151

Set punte in scatola HSS-C08+TiN

Codice	Set progressione
PRPCNCT-S1	D. 1-10 X 0,5 mm 19 pz.
PRPCNCT-S2	D. 1-13 X 0,5 mm 25 pz.
PRPCNCT-S4	D. 1-5,9 X 0,1 mm 50 pz.
PRPCNCT-S5	D. 6-10 X 0,1 mm 41 pz.



Set Punte senza scatola HSS-C08+TiN

Codice	Set progressione
PRPCNCT-S6	D. 1-10 X 0,1 mm 91 pz.

Punte elicoidali cilindriche per alluminio **Corte**

Straight shank twist drills for aluminium **Jobber**

Spiralbohrer für Aluminium mit Zylinderschaft **Kurz**

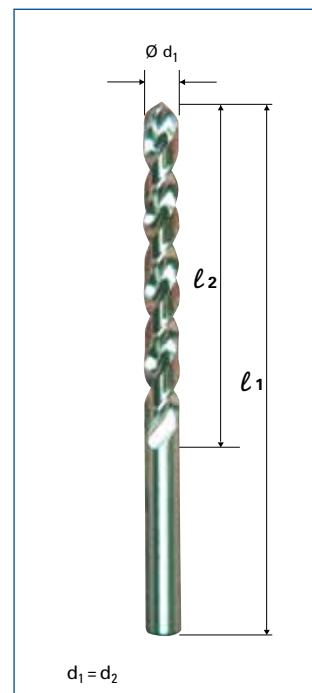
DIN 338
HSS
W 38°
h8
135°
P. 160

 sotto 2 mm
 under 2 mm
 unter 2 mm

 2 mm e oltre
 2 mm & over
 2 mm & über

Applicazioni: - Per forare alluminio, lega di alluminio, rame, legno e materiali sintetici.
 Application: - Drilling into aluminium and its alloys, silumin, zinc, refined copper, wood and other soft synthetic materials.

Verwendung: - Zum bohren von weichen und langspannenden Werkstoffen wie Aluminium-Legierung, Zink, Hitten-Kupfer, Kunststoffe und Holz.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNW-01,50	1.5	40	18
PRPCNW-01,60	1.6	43	20
PRPCNW-01,70	1.7	43	20
PRPCNW-01,80	1.8	46	22
PRPCNW-01,90	1.9	46	22
PRPCNW-02,00	2.0	49	24
PRPCNW-02,10	2.1	49	24
PRPCNW-02,20	2.2	53	27
PRPCNW-02,30	2.3	53	27
PRPCNW-02,40	2.4	57	30
PRPCNW-02,50	2.5	57	30
PRPCNW-02,60	2.6	57	30
PRPCNW-02,70	2.7	61	33
PRPCNW-02,80	2.8	61	33
PRPCNW-02,90	2.9	61	33
PRPCNW-03,00	3.0	61	33
PRPCNW-03,10	3.1	65	36
PRPCNW-03,20	3.2	65	36
PRPCNW-03,30	3.3	65	36
PRPCNW-03,40	3.4	70	39
PRPCNW-03,50	3.5	70	39
PRPCNW-03,60	3.6	70	39
PRPCNW-03,70	3.7	70	39
PRPCNW-03,80	3.8	75	43
PRPCNW-03,90	3.9	75	43
PRPCNW-04,00	4.0	75	43
PRPCNW-04,10	4.1	75	43
PRPCNW-04,20	4.2	75	43
PRPCNW-04,30	4.3	80	47
PRPCNW-04,40	4.4	80	47
PRPCNW-04,50	4.5	80	47

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNW-04,60	4.6	80	47
PRPCNW-04,70	4.7	80	47
PRPCNW-04,80	4.8	86	52
PRPCNW-04,90	4.9	86	52
PRPCNW-05,00	5.0	86	52
PRPCNW-05,10	5.1	86	52
PRPCNW-05,20	5.2	86	52
PRPCNW-05,30	5.3	86	52
PRPCNW-05,40	5.4	93	57
PRPCNW-05,50	5.5	93	57
PRPCNW-05,60	5.6	93	57
PRPCNW-05,70	5.7	93	57
PRPCNW-05,80	5.8	93	57
PRPCNW-05,90	5.9	93	57
PRPCNW-06,00	6.0	93	57
PRPCNW-06,10	6.1	101	63
PRPCNW-06,20	6.2	101	63
PRPCNW-06,30	6.3	101	63
PRPCNW-06,40	6.4	101	63
PRPCNW-06,50	6.5	101	63
PRPCNW-06,60	6.6	101	63
PRPCNW-06,70	6.7	101	63
PRPCNW-06,80	6.8	109	69
PRPCNW-06,90	6.9	109	69
PRPCNW-07,00	7.0	109	69
PRPCNW-07,10	7.1	109	69
PRPCNW-07,20	7.2	109	69
PRPCNW-07,30	7.3	109	69
PRPCNW-07,40	7.4	109	69
PRPCNW-07,50	7.5	109	69
PRPCNW-07,60	7.6	117	75

Punte elicoidali cilindriche per ottone Corte
Straight shank twist drills for brass Jobber
Spiralbohrer für Messing mit Zylinderschaft Kurz

DIN 338
HSS

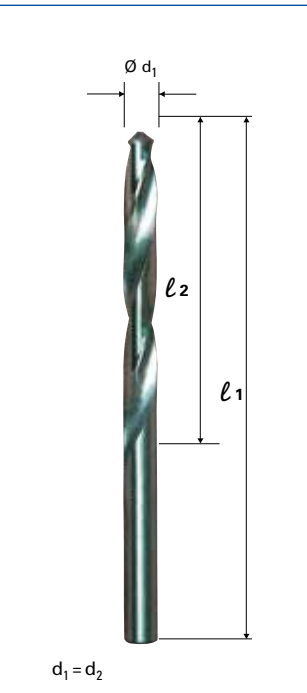
 $15^{\circ}\sim 20^{\circ}$

 h8

 118°

 P. 160

Applicazioni: - Per forare fibra di vetro, materiali come bronzo, bronzo fosforoso, lega di magnesio.
 Application: - Drilling into hard, brittle, short-chip materials i.e., brass, bronze, phosphor bronze, magnesium alloys.
 Verwendung: - Zum bohren harten und spröden Werkstoffen wie Messing, Magnesium-Legierungen, Bronze, Phosphorbronze.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNH-01,50	1.5	40	18
PRPCNH-01,60	1.6	43	20
PRPCNH-01,70	1.7	43	20
PRPCNH-01,80	1.8	46	22
PRPCNH-01,90	1.9	46	22
PRPCNH-02,00	2.0	49	24
PRPCNH-02,10	2.1	49	24
PRPCNH-02,20	2.2	53	27
PRPCNH-02,30	2.3	53	27
PRPCNH-02,40	2.4	57	30
PRPCNH-02,50	2.5	57	30
PRPCNH-02,60	2.6	57	30
PRPCNH-02,70	2.7	61	33
PRPCNH-02,80	2.8	61	33
PRPCNH-02,90	2.9	61	33
PRPCNH-03,00	3.0	61	33
PRPCNH-03,10	3.1	65	36
PRPCNH-03,20	3.2	65	36
PRPCNH-03,30	3.3	65	36
PRPCNH-03,40	3.4	70	39
PRPCNH-03,50	3.5	70	39
PRPCNH-03,60	3.6	70	39
PRPCNH-03,70	3.7	70	39
PRPCNH-03,80	3.8	75	43
PRPCNH-03,90	3.9	75	43
PRPCNH-04,00	4.0	75	43
PRPCNH-04,10	4.1	75	43
PRPCNH-04,20	4.2	75	43
PRPCNH-04,30	4.3	80	47
PRPCNH-04,40	4.4	80	47
PRPCNH-04,50	4.5	80	47

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNH-04,60	4.6	80	47
PRPCNH-04,70	4.7	80	47
PRPCNH-04,80	4.8	86	52
PRPCNH-04,90	4.9	86	52
PRPCNH-05,00	5.0	86	52
PRPCNH-05,10	5.1	86	52
PRPCNH-05,20	5.2	86	52
PRPCNH-05,30	5.3	86	52
PRPCNH-05,40	5.4	93	57
PRPCNH-05,50	5.5	93	57
PRPCNH-05,60	5.6	93	57
PRPCNH-05,70	5.7	93	57
PRPCNH-05,80	5.8	93	57
PRPCNH-05,90	5.9	93	57
PRPCNH-06,00	6.0	93	57
PRPCNH-06,10	6.1	101	63
PRPCNH-06,20	6.2	101	63
PRPCNH-06,30	6.3	101	63
PRPCNH-06,40	6.4	101	63
PRPCNH-06,50	6.5	101	63
PRPCNH-06,60	6.6	101	63
PRPCNH-06,70	6.7	101	63
PRPCNH-06,80	6.8	109	69
PRPCNH-06,90	6.9	109	69
PRPCNH-07,00	7.0	109	69
PRPCNH-07,10	7.1	109	69
PRPCNH-07,20	7.2	109	69
PRPCNH-07,30	7.3	109	69
PRPCNH-07,40	7.4	109	69
PRPCNH-07,50	7.5	109	69
PRPCNH-07,60	7.6	117	75

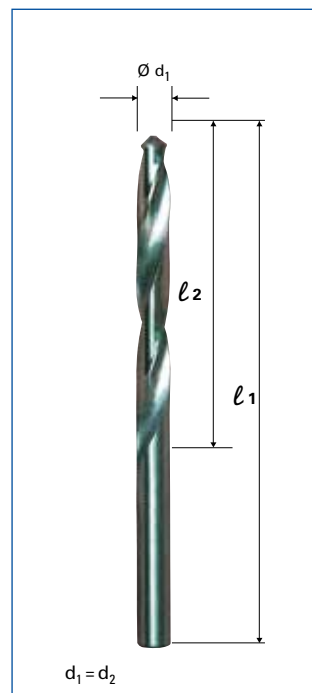
Punte elicoidali cilindriche per ottone **Corte**

Straight shank twist drills for brass **Jobber**

Spiralbohrer für Messing mit Zylinderschaft **Kurz**

DIN 338 HSS 15°~20° h8 118° P. 160

- Applicazioni:** - Per forare fibra di vetro, materiali come bronzo, bronzo fosforoso, lega di magnesio.
Application: - Drilling into hard, brittle, short-chip materials i.e., brass, bronze, phosphor bronze, magnesium alloys.
Verwendung: - Zum bohren harten und spröden Werkstoffen wie Messing, Magnesium-Legierungen, Bronze, Phosphorbronze.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNH-07,70	7.7	117	75
PRPCNH-07,80	7.8	117	75
PRPCNH-07,90	7.9	117	75
PRPCNH-08,00	8.0	117	75
PRPCNH-08,10	8.1	117	75
PRPCNH-08,20	8.2	117	75
PRPCNH-08,30	8.3	117	75
PRPCNH-08,40	8.4	117	75
PRPCNH-08,50	8.5	117	75
PRPCNH-08,60	8.6	125	81
PRPCNH-08,70	8.7	125	81
PRPCNH-08,80	8.8	125	81
PRPCNH-08,90	8.9	125	81
PRPCNH-09,00	9.0	125	81
PRPCNH-09,10	9.1	125	81

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCNH-09,20	9.2	125	81
PRPCNH-09,30	9.3	125	81
PRPCNH-09,40	9.4	125	81
PRPCNH-09,50	9.5	125	81
PRPCNH-09,60	9.6	133	87
PRPCNH-09,70	9.7	133	87
PRPCNH-09,80	9.8	133	87
PRPCNH-09,90	9.9	133	87
PRPCNH-10,00	10.0	133	87
PRPCNH-10,50	10.5	133	87
PRPCNH-11,00	11.0	142	94
PRPCNH-11,50	11.5	142	94
PRPCNH-12,00	12.0	151	101
PRPCNH-12,50	12.5	151	101
PRPCNH-13,00	13.0	151	101

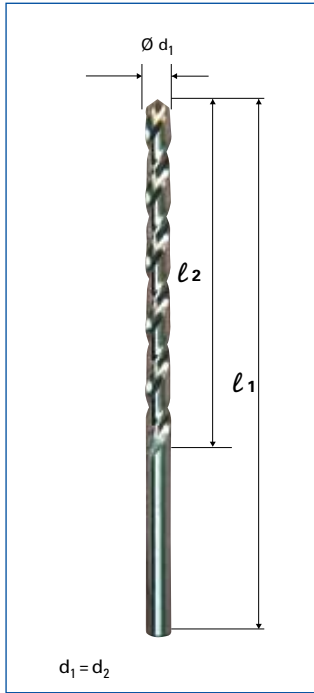
Punte elicoidali cilindriche cobalto **Lunghe**

Straight shank twist drills **Long**

Spiralbohrer mit Zylinderschaft **Lang**

DIN 340
HSSCo8
N 33°
h8
135°
P. 158

- Applicazioni: - Per forature profonde su acciaio inox, materiali di difficile lavorabilità come titanio e inconel.
 Application: - Drilling deep holes in stainless steels, materials of difficult machinability such as titanium and inconel.
 Verwendung: - Für Bohrarbeiten mit Bohrbuchsen oder an tief liegenden Stellen.
 - Zum bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPLNC-02,00	2.0	85	56
PRPLNC-02,10	2.1	85	56
PRPLNC-02,20	2.2	90	59
PRPLNC-02,30	2.3	90	59
PRPLNC-02,40	2.4	95	62
PRPLNC-02,50	2.5	95	62
PRPLNC-02,60	2.6	95	62
PRPLNC-02,70	2.7	100	66
PRPLNC-02,80	2.8	100	66
PRPLNC-02,90	2.9	100	66
PRPLNC-03,00	3.0	100	66
PRPLNC-03,10	3.1	106	69
PRPLNC-03,20	3.2	106	69
PRPLNC-03,30	3.3	106	69
PRPLNC-03,40	3.4	112	73
PRPLNC-03,50	3.5	112	73
PRPLNC-03,60	3.6	112	73
PRPLNC-03,70	3.7	112	73
PRPLNC-03,80	3.8	119	78
PRPLNC-03,90	3.9	119	78
PRPLNC-04,00	4.0	119	78
PRPLNC-04,10	4.1	119	78
PRPLNC-04,20	4.2	119	78
PRPLNC-04,30	4.3	126	82
PRPLNC-04,40	4.4	126	82
PRPLNC-04,50	4.5	126	82
PRPLNC-04,60	4.6	126	82

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPLNC-04,70	4.7	126	82
PRPLNC-04,80	4.8	132	87
PRPLNC-04,90	4.9	132	87
PRPLNC-05,00	5.0	132	87
PRPLNC-05,10	5.1	132	87
PRPLNC-05,20	5.2	132	87
PRPLNC-05,30	5.3	139	87
PRPLNC-05,40	5.4	139	91
PRPLNC-05,50	5.5	139	91
PRPLNC-05,60	5.6	139	91
PRPLNC-05,70	5.7	139	91
PRPLNC-05,80	5.8	139	91
PRPLNC-05,90	5.9	139	91
PRPLNC-06,00	6.0	139	91
PRPLNC-06,10	6.1	148	97
PRPLNC-06,20	6.2	148	97
PRPLNC-06,30	6.3	148	97
PRPLNC-06,40	6.4	148	97
PRPLNC-06,50	6.5	148	97
PRPLNC-06,60	6.6	148	97
PRPLNC-06,70	6.7	148	97
PRPLNC-06,80	6.8	156	102
PRPLNC-06,90	6.9	156	102
PRPLNC-07,00	7.0	156	102
PRPLNC-07,10	7.1	156	102
PRPLNC-07,20	7.2	156	102
PRPLNC-07,30	7.3	156	102

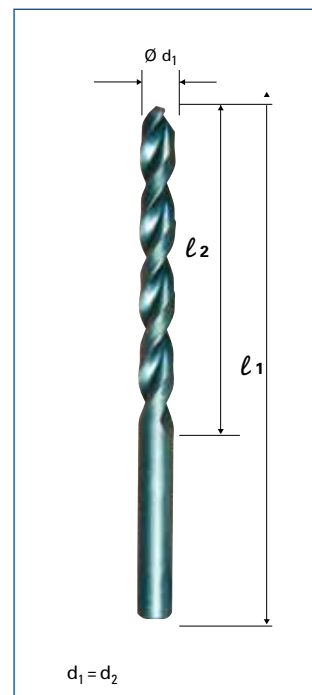
Punte elicoidali cilindriche per fori profondi **Corte** Straight shank twist drills for deep holes **Jobber** Spiralbohrer für tiefloch mit Zylinderschaft **Kurz**

□ **GH100**
 Elica per fori profondi • Worm pattern drills

Applicazioni: - Per forature profonde su acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata, leghe di alluminio, leghe di magnesio, bronzo e ottone.

Application: - Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, Special aluminium or magnesium alloys.

Verwendung: - Zum bohren von legiertem und unlegiertem Stahl, Grauguß, Temperguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPCG-02,00	2.0	49	24
PRPCG-02,10	2.1	49	24
PRPCG-02,20	2.2	53	27
PRPCG-02,30	2.3	53	27
PRPCG-02,40	2.4	57	30
PRPCG-02,50	2.5	57	30
PRPCG-02,60	2.6	57	30
PRPCG-02,70	2.7	61	33
PRPCG-02,80	2.8	61	33
PRPCG-02,90	2.9	61	33
PRPCG-03,00	3.0	61	33
PRPCG-03,10	3.1	65	36
PRPCG-03,20	3.2	65	36
PRPCG-03,30	3.3	65	36
PRPCG-03,40	3.4	70	39
PRPCG-03,50	3.5	70	39
PRPCG-03,60	3.6	70	39
PRPCG-03,70	3.7	70	39
PRPCG-03,80	3.8	75	43
PRPCG-03,90	3.9	75	43
PRPCG-04,00	4.0	75	43
PRPCG-04,10	4.1	75	43
PRPCG-04,20	4.2	75	43
PRPCG-04,30	4.3	80	47
PRPCG-04,40	4.4	80	47
PRPCG-04,50	4.5	80	47
PRPCG-04,60	4.6	80	47

Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPCG-04,70	4.7	80	47
PRPCG-04,80	4.8	86	52
PRPCG-04,90	4.9	86	52
PRPCG-05,00	5.0	86	52
PRPCG-05,10	5.1	86	52
PRPCG-05,20	5.2	86	52
PRPCG-05,30	5.3	86	52
PRPCG-05,40	5.4	93	57
PRPCG-05,50	5.5	93	57
PRPCG-05,60	5.6	93	57
PRPCG-05,70	5.7	93	57
PRPCG-05,80	5.8	93	57
PRPCG-05,90	5.9	93	57
PRPCG-06,00	6.0	93	57
PRPCG-06,10	6.1	101	63
PRPCG-06,20	6.2	101	63
PRPCG-06,30	6.3	101	63
PRPCG-06,40	6.4	101	63
PRPCG-06,50	6.5	101	63
PRPCG-06,60	6.6	101	63
PRPCG-06,70	6.7	101	63
PRPCG-06,80	6.8	109	69
PRPCG-06,90	6.9	109	69
PRPCG-07,00	7.0	109	69
PRPCG-07,10	7.1	109	69
PRPCG-07,20	7.2	109	69
PRPCG-07,30	7.3	109	69

□ Sono disponibili a richiesta PRPCGT (TiN), PRPCGC (TiCN) e PRPCGA (TiAlN)
 The TiN (PRPCGT), TiCN (PRPCGC) and TiAlN (PRPCGA) are available on your request.

Punte elicoidali cilindriche per fori profondi **Corte**

Straight shank twist drills for deep holes **Jobber**

Spiralbohrer für tiefloch mit Zylinderschaft **Kurz**

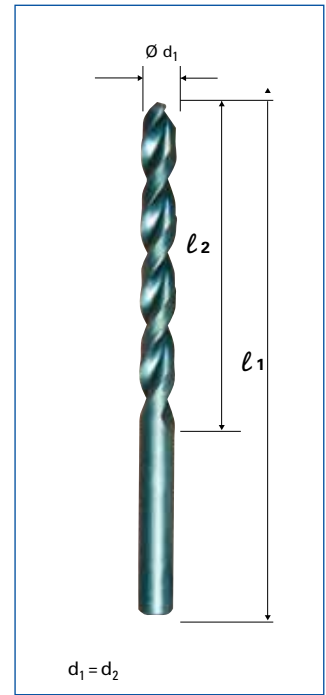
DIN 338
HSSCo5
38°
h8
130°
P. 161

☐ **GH100**
Elica per fori profondi • Worm pattern drills

Applicazioni: - Per forature profonde su acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata, leghe di alluminio, leghe di magnesio, bronzo e ottone.

Application: - Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, Special aluminium or magnesium alloys.

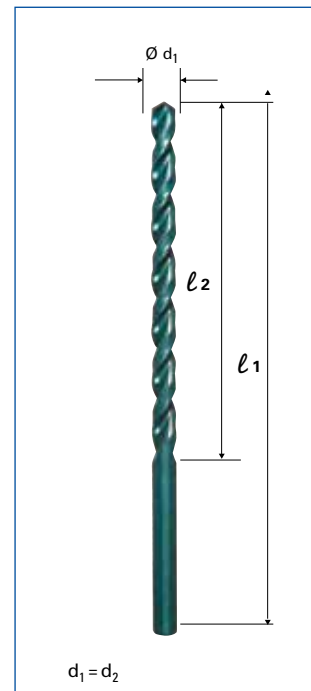
Verwendung: - Zum bohren von legiertem und unlegiertem Stahl, Grauguß, Temperguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCG-07,40	7.4	109	69	PRPCG-09,40	9.4	125	81
PRPCG-07,50	7.5	109	69	PRPCG-09,50	9.5	125	81
PRPCG-07,60	7.6	117	75	PRPCG-09,60	9.6	133	87
PRPCG-07,70	7.7	117	75	PRPCG-09,70	9.7	133	87
PRPCG-07,80	7.8	117	75	PRPCG-09,80	9.8	133	87
PRPCG-07,90	7.9	117	75	PRPCG-09,90	9.9	133	87
PRPCG-08,00	8.0	117	75	PRPCG-10,00	10.0	133	87
PRPCG-08,10	8.1	117	75	PRPCG-10,10	10.1	133	87
PRPCG-08,20	8.2	117	75	PRPCG-10,20	10.2	133	87
PRPCG-08,30	8.3	117	75	PRPCG-10,50	10.5	133	87
PRPCG-08,40	8.4	117	75	PRPCG-10,80	10.8	142	94
PRPCG-08,50	8.5	117	75	PRPCG-11,00	11.0	142	94
PRPCG-08,60	8.6	125	81	PRPCG-11,20	11.2	142	94
PRPCG-08,70	8.7	125	81	PRPCG-11,50	11.5	142	94
PRPCG-08,80	8.8	125	81	PRPCG-11,80	11.8	142	94
PRPCG-08,90	8.9	125	81	PRPCG-12,00	12.0	151	101
PRPCG-09,00	9.0	125	81	PRPCG-12,20	12.2	151	101
PRPCG-09,10	9.1	125	81	PRPCG-12,50	12.5	151	101
PRPCG-09,20	9.2	125	81	PRPCG-12,80	12.8	151	101
PRPCG-09,30	9.3	125	81	PRPCG-13,00	13.0	151	101

☐ Sono disponibili a richiesta PRPCGT (TiN), PRPCGC (TiCN) e PRPCGA (TiAlN)
The TiN (PRPCGT), TiCN (PRPCGC) and TiAlN (PRPCGA) are available on your request.

Punte elicoidali cilindriche per fori profondi **Lunghe**
Straight shank twist drills for deep holes **Long**
Spiralbohrer für tiefloch mit Zylinderschaft **Lang**



DIN 340 **HSSCo5** **P. 161**

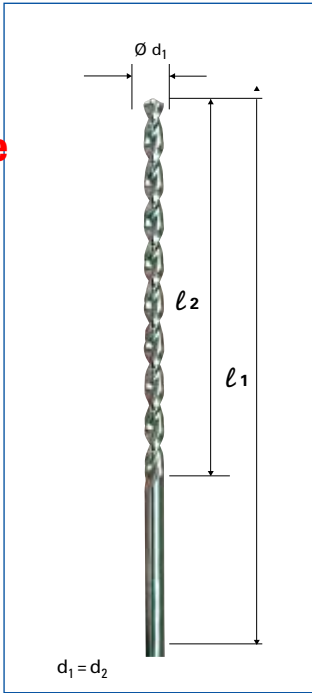
GH100
Elica per fori profondi • Worm pattern drills

- Applicazioni:** - Per forature profonde su acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata, leghe di alluminio, leghe di magnesio, bronzo e ottone.
Application: - Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, Special aluminium or magnesium alloys.
Verwendung: - Zum bohren von legiertem und unlegiertem Stahl, Grauguß, Temperguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm	Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPLGC-02,00	2.0	85	56	PRPLGC-05,20	5.2	132	87
PRPLGC-02,10	2.1	85	56	PRPLGC-05,50	5.5	139	91
PRPLGC-02,20	2.2	90	59	PRPLGC-05,80	5.8	139	91
PRPLGC-02,30	2.3	90	59	PRPLGC-06,00	6.0	139	91
PRPLGC-02,40	2.4	95	62	PRPLGC-06,20	6.2	148	97
PRPLGC-02,50	2.5	95	62	PRPLGC-06,50	6.5	148	97
PRPLGC-02,60	2.6	95	62	PRPLGC-06,80	6.8	156	102
PRPLGC-02,70	2.7	100	66	PRPLGC-07,00	7.0	156	102
PRPLGC-02,80	2.8	100	66	PRPLGC-07,20	7.2	156	102
PRPLGC-02,90	2.9	100	66	PRPLGC-07,50	7.5	156	102
PRPLGC-03,00	3.0	100	66	PRPLGC-07,80	7.8	165	109
PRPLGC-03,10	3.1	106	69	PRPLGC-08,00	8.0	165	109
PRPLGC-03,20	3.2	106	69	PRPLGC-08,20	8.2	165	109
PRPLGC-03,30	3.3	106	69	PRPLGC-08,50	8.5	165	109
PRPLGC-03,40	3.4	112	73	PRPLGC-09,00	9.0	175	115
PRPLGC-03,50	3.5	112	73	PRPLGC-09,50	9.5	175	115
PRPLGC-03,60	3.6	112	73	PRPLGC-09,80	9.8	184	121
PRPLGC-03,70	3.7	112	73	PRPLGC-10,00	10.0	184	121
PRPLGC-03,80	3.8	119	78	PRPLGC-10,50	10.5	184	121
PRPLGC-03,90	3.9	119	78	PRPLGC-11,00	11.0	195	128
PRPLGC-04,00	4.0	119	78	PRPLGC-11,50	11.5	195	128
PRPLGC-04,20	4.2	119	78	PRPLGC-12,00	12.0	205	134
PRPLGC-04,50	4.5	126	82	PRPLGC-12,50	12.5	205	134
PRPLGC-04,80	4.8	132	87	PRPLGC-13,00	13.0	205	134
PRPLGC-05,00	5.0	132	87				

Sono disponibili a richiesta PRPLGCT (TiN), PRPLGCC (TiCN) e PRPLGCA (TiAlN)
The TiN (PRPLGCT), TiCN (PRPLGCC) and TiAlN (PRPLGCA) are available on your request.

Punte elicoidali cilindriche per fori profondi **Extralunghe** Straight shank twist drills for deep hole **Extra Long** Spiralbohrer für tiefloch mit Zylinderschaft **Überlang**



DIN 1869/1 HSSCo5 38° h8 130° P. 161

GH100
 Elica per fori profondi • Worm pattern drills

- Applicazioni: - Per forature profonde su acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata, leghe di alluminio, leghe di magnesio, bronzo e ottone.
 Application: - Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, Special aluminium or magnesium alloys.
 Verwendung: - Zum bohren von legiertem und unlegiertem Stahl, Grauguß, Temperguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.

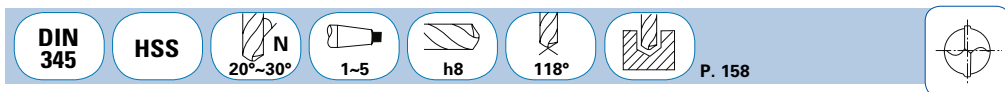
Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm	Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPEGC-02,00	2.0	125	85	PRPEGC-07,00	7.0	225	155
PRPEGC-02,25	2.25	135	90	PRPEGC-07,25	7.25	225	155
PRPEGC-02,50	2.5	140	95	PRPEGC-07,50	7.5	225	155
PRPEGC-02,75	2.75	150	100	PRPEGC-07,75	7.75	240	165
PRPEGC-03,00	3.0	150	100	PRPEGC-08,00	8.0	240	165
PRPEGC-03,25	3.25	155	105	PRPEGC-08,25	8.25	240	165
PRPEGC-03,50	3.5	165	115	PRPEGC-08,50	8.5	240	165
PRPEGC-03,75	3.75	165	115	PRPEGC-08,75	8.75	250	175
PRPEGC-04,00	4.0	175	120	PRPEGC-09,00	9.0	250	175
PRPEGC-04,25	4.25	175	120	PRPEGC-09,25	9.25	250	175
PRPEGC-04,50	4.5	185	125	PRPEGC-09,50	9.5	250	175
PRPEGC-04,75	4.75	185	125	PRPEGC-09,75	9.75	265	185
PRPEGC-05,00	5.0	195	135	PRPEGC-10,00	10.0	265	185
PRPEGC-05,25	5.25	195	135	PRPEGC-10,50	10.5	265	185
PRPEGC-05,50	5.5	205	140	PRPEGC-11,00	11.0	280	195
PRPEGC-05,75	5.75	205	140	PRPEGC-11,50	11.5	280	195
PRPEGC-06,00	6.0	205	140	PRPEGC-12,00	12.0	295	205
PRPEGC-06,25	6.25	215	150	PRPEGC-12,50	12.5	295	205
PRPEGC-06,50	6.5	215	150	PRPEGC-13,00	13.0	295	205
PRPEGC-06,75	6.75	225	155				

Sono disponibili a richiesta PRPEGCT (TiN), PRPEGCN (TiCN) e PRPEGCA (TiAlN)
 The TiN (PRPEGCT), TiCN (PRPEGCN) and TiAlN (PRPEGCA) are available on your request.

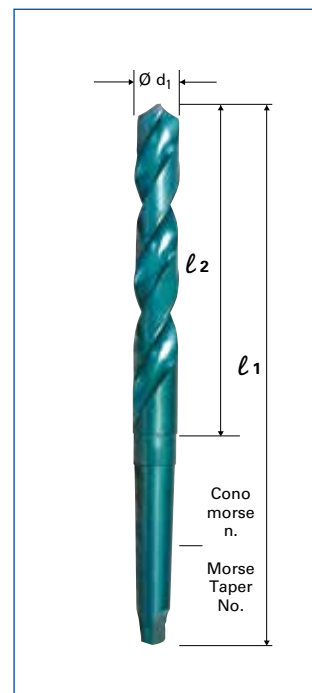
Punte elicoidali cono morse **Corte**

Morse taper shank twist drills **Jobber**

Spiralbohrer mit Morsekegelschaft **Kurz**



Applicazioni: - Per forare acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
 Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
 Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.



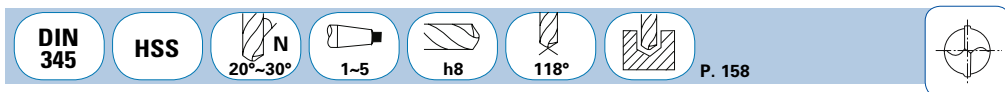
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMN-13,00	13.0	182	101	1
PRPCMN-13,20	13.2	182	101	1
PRPCMN-13,25	13.25	189	108	1
PRPCMN-13,50	13.5	189	108	1
PRPCMN-13,75	13.75	189	108	1
PRPCMN-13,80	13.8	189	108	1
PRPCMN-14,00	14.0	189	108	1
PRPCMN-14,25	14.25	212	114	2
PRPCMN-14,50	14.5	212	114	2
PRPCMN-14,75	14.75	212	114	2
PRPCMN-15,00	15.0	212	114	2
PRPCMN-15,25	15.25	218	120	2
PRPCMN-15,50	15.5	218	120	2
PRPCMN-15,75	15.75	218	120	2
PRPCMN-16,00	16.0	218	120	2
PRPCMN-16,25	16.25	223	125	2
PRPCMN-16,50	16.5	223	125	2
PRPCMN-16,75	16.75	223	125	2
PRPCMN-17,00	17.0	223	125	2
PRPCMN-17,25	17.25	228	130	2
PRPCMN-17,50	17.5	228	130	2
PRPCMN-17,75	17.75	228	130	2
PRPCMN-18,00	18.0	228	130	2
PRPCMN-18,25	18.25	233	135	2
PRPCMN-18,50	18.5	233	135	2
PRPCMN-18,75	18.75	233	135	2
PRPCMN-19,00	19.0	233	135	2
PRPCMN-19,25	19.25	238	140	2
PRPCMN-19,50	19.5	238	140	2
PRPCMN-19,75	19.75	238	140	2
PRPCMN-20,00	20.0	238	140	2
PRPCMN-20,25	20.25	243	145	2

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMN-20,50	20.5	243	145	2
PRPCMN-20,75	20.75	243	145	2
PRPCMN-21,00	21.0	243	145	2
PRPCMN-21,25	21.25	248	150	2
PRPCMN-21,50	21.50	248	150	2
PRPCMN-21,75	21.75	248	150	2
PRPCMN-22,00	22.0	248	150	2
PRPCMN-22,25	22.25	248	150	2
PRPCMN-22,50	22.5	253	155	2
PRPCMN-22,75	22.75	253	155	2
PRPCMN-23,00	23.0	253	155	2
PRPCMN-23,25	23.25	276	155	3
PRPCMN-23,50	23.5	276	155	3
PRPCMN-23,75	23.75	281	160	3
PRPCMN-24,00	24.0	281	160	3
PRPCMN-24,25	24.25	281	160	3
PRPCMN-24,50	24.5	281	160	3
PRPCMN-24,75	24.75	281	160	3
PRPCMN-25,00	25.0	281	160	3
PRPCMN-25,25	25.25	286	165	3
PRPCMN-25,50	25.5	286	165	3
PRPCMN-25,75	25.75	286	165	3
PRPCMN-26,00	26.0	286	165	3
PRPCMN-26,25	26.25	286	165	3
PRPCMN-26,50	26.5	286	165	3
PRPCMN-26,75	26.75	291	170	3
PRPCMN-27,00	27.0	291	170	3
PRPCMN-27,25	27.25	291	170	3
PRPCMN-27,50	27.5	291	170	3
PRPCMN-27,75	27.75	291	170	3
PRPCMN-28,00	28.0	291	170	3
PRPCMN-28,25	28.25	296	175	3

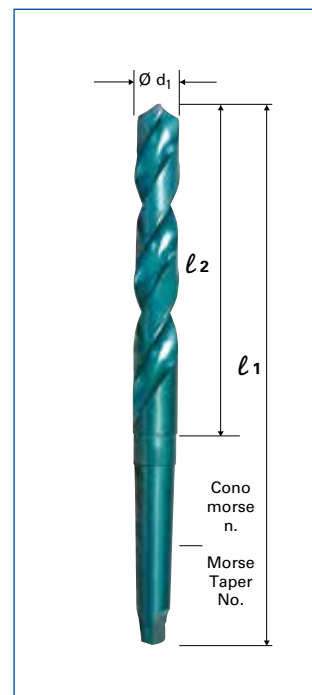
Punte elicoidali cono morse **Corte**

Morse taper shank twist drills **Jobber**

Spiralbohrer mit Morsekegelschaft **Kurz**



Applicazioni: - Per forare acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
 Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
 Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.



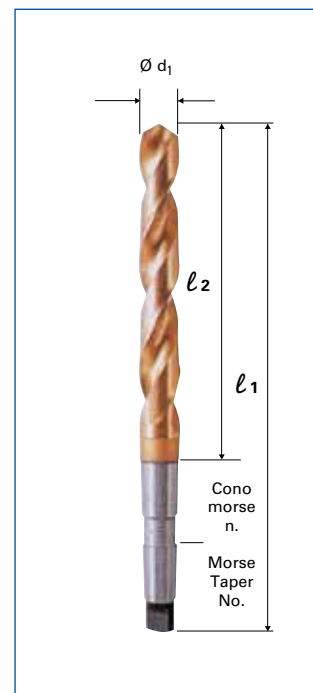
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMN-28,50	28.5	296	175	3
PRPCMN-28,75	28.75	296	175	3
PRPCMN-29,00	29.0	296	175	3
PRPCMN-29,25	29.25	296	175	3
PRPCMN-29,50	29.5	296	175	3
PRPCMN-29,75	29.75	296	175	3
PRPCMN-30,00	30.0	296	175	3
PRPCMN-30,25	30.25	301	180	3
PRPCMN-30,50	30.5	301	180	3
PRPCMN-30,75	30.75	301	180	3
PRPCMN-31,00	31	301	180	3
PRPCMN-31,25	31.25	301	180	3
PRPCMN-31,50	31.5	301	180	3
PRPCMN-31,75	31.75	306	185	3
PRPCMN-32,00	32.0	334	185	4
PRPCMN-32,50	32.5	334	185	4
PRPCMN-33,00	33.0	334	185	4
PRPCMN-33,50	33.5	334	185	4
PRPCMN-34,00	34.0	339	190	4
PRPCMN-34,50	34.5	339	190	4
PRPCMN-35,00	35.0	339	190	4
PRPCMN-35,50	35.5	339	190	4
PRPCMN-36,00	36.0	344	195	4
PRPCMN-36,50	36.5	344	195	4
PRPCMN-37,00	37.0	344	195	4
PRPCMN-37,50	37.5	344	195	4
PRPCMN-38,00	38.0	349	200	4
PRPCMN-38,50	38.5	349	200	4
PRPCMN-39,00	39.0	349	200	4
PRPCMN-39,50	39.5	349	200	4
PRPCMN-40,00	40.0	349	200	4

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMN-40,50	40.5	354	205	4
PRPCMN-41,00	41.0	354	205	4
PRPCMN-41,50	41.5	354	205	4
PRPCMN-42,00	42.0	354	205	4
PRPCMN-42,50	42.5	354	205	4
PRPCMN-43,00	43.0	359	210	4
PRPCMN-43,50	43.5	359	210	4
PRPCMN-44,00	44.0	359	210	4
PRPCMN-44,50	44.5	359	210	4
PRPCMN-45,00	45.0	359	210	4
PRPCMN-45,50	45.5	364	215	4
PRPCMN-46,00	46.0	364	215	4
PRPCMN-46,50	46.5	364	215	4
PRPCMN-47,00	47.0	364	215	4
PRPCMN-47,50	47.5	364	215	4
PRPCMN-48,00	48.0	369	220	4
PRPCMN-48,50	48.5	369	220	4
PRPCMN-49,00	49.0	369	220	4
PRPCMN-49,50	49.5	369	220	4
PRPCMN-50,00	50.0	369	220	4
PRPCMN-50,50	50.5	374	225	4
PRPCMN-51,00	51.0	412	225	5
PRPCMN-52,00	52.0	412	225	5
PRPCMN-53,00	53.0	412	225	5
PRPCMN-54,00	54.0	417	230	5
PRPCMN-55,00	55.0	417	230	5
PRPCMN-56,00	56.0	417	230	5
PRPCMN-57,00	57.0	422	235	5
PRPCMN-58,00	58.0	422	235	5
PRPCMN-59,00	59.0	422	235	5
PRPCMN-60,00	60.0	422	235	5

Punte elicoidali cono morse rivestite TiN **Corte**

Morse taper shank twist drills TiN coating **Jobber**

Spiralbohrer mit Morsekegelschaft **Kurz**



DIN 345
HSS
20°-30°
1-5
h8
118°
P. 158

Applicazioni: - Per forare acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite. Rivestite TiN.
Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.

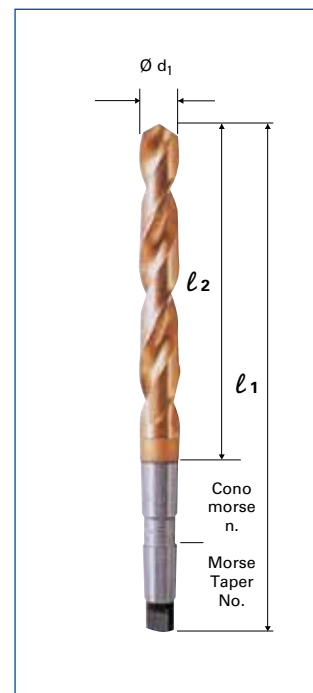
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMNT-13,00	13.0	182	101	1
PRPCMNT-13,20	13.2	182	101	1
PRPCMNT-13,25	13.25	189	108	1
PRPCMNT-13,50	13.5	189	108	1
PRPCMNT-13,75	13.75	189	108	1
PRPCMNT-13,80	13.8	189	108	1
PRPCMNT-14,00	14.0	189	108	1
PRPCMNT-14,25	14.25	212	114	2
PRPCMNT-14,50	14.5	212	114	2
PRPCMNT-14,75	14.75	212	114	2
PRPCMNT-15,00	15.0	212	114	2
PRPCMNT-15,25	15.25	218	120	2
PRPCMNT-15,50	15.5	218	120	2
PRPCMNT-15,75	15.75	218	120	2
PRPCMNT-16,00	16.0	218	120	2
PRPCMNT-16,25	16.25	223	125	2
PRPCMNT-16,50	16.5	223	125	2
PRPCMNT-16,75	16.75	223	125	2
PRPCMNT-17,00	17.0	223	125	2
PRPCMNT-17,25	17.25	228	130	2
PRPCMNT-17,50	17.5	228	130	2
PRPCMNT-17,75	17.75	228	130	2
PRPCMNT-18,00	18.0	228	130	2
PRPCMNT-18,25	18.25	233	135	2
PRPCMNT-18,50	18.5	233	135	2
PRPCMNT-18,75	18.75	233	135	2
PRPCMNT-19,00	19.0	233	135	2
PRPCMNT-19,25	19.25	238	140	2
PRPCMNT-19,50	19.5	238	140	2
PRPCMNT-19,75	19.75	238	140	2
PRPCMNT-20,00	20.0	238	140	2
PRPCMNT-20,25	20.25	243	145	2

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMNT-20,50	20.5	243	145	2
PRPCMNT-20,75	20.75	243	145	2
PRPCMNT-21,00	21.0	243	145	2
PRPCMNT-21,25	21.25	248	150	2
PRPCMNT-21,50	21.50	248	150	2
PRPCMNT-21,75	21.75	248	150	2
PRPCMNT-22,00	22.0	248	150	2
PRPCMNT-22,25	22.25	248	150	2
PRPCMNT-22,50	22.5	253	155	2
PRPCMNT-22,75	22.75	253	155	2
PRPCMNT-23,00	23.0	253	155	2
PRPCMNT-23,25	23.25	276	155	3
PRPCMNT-23,50	23.5	276	155	3
PRPCMNT-23,75	23.75	281	160	3
PRPCMNT-24,00	24.0	281	160	3
PRPCMNT-24,25	24.25	281	160	3
PRPCMNT-24,50	24.5	281	160	3
PRPCMNT-24,75	24.75	281	160	3
PRPCMNT-25,00	25.0	281	160	3
PRPCMNT-25,25	25.25	286	165	3
PRPCMNT-25,50	25.5	286	165	3
PRPCMNT-25,75	25.75	286	165	3
PRPCMNT-26,00	26.0	286	165	3
PRPCMNT-26,25	26.25	286	165	3
PRPCMNT-26,50	26.5	286	165	3
PRPCMNT-26,75	26.75	291	170	3
PRPCMNT-27,00	27.0	291	170	3
PRPCMNT-27,25	27.25	291	170	3
PRPCMNT-27,50	27.5	291	170	3
PRPCMNT-27,75	27.75	291	170	3
PRPCMNT-28,00	28.0	291	170	3
PRPCMNT-28,25	28.25	296	175	3

Punte elicoidali cono morse rivestite TiN **Corte**

Morse taper shank twist drills TiN coating **Jobber**

Spiralbohrer mit Morsekegelschaft **Kurz**



DIN 345
HSS
20°-30° N
1-5
h8
118°
P. 158

Applicazioni: - Per forare acciaio, fusione di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite. Rivestite TiN.
Application: - Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable castiron, graphite.
Verwendung: - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMNT-28,50	28.5	296	175	3
PRPCMNT-28,75	28.75	296	175	3
PRPCMNT-29,00	29.0	296	175	3
PRPCMNT-29,25	29.25	296	175	3
PRPCMNT-29,50	29.5	296	175	3
PRPCMNT-29,75	29.75	296	175	3
PRPCMNT-30,00	30.0	296	175	3
PRPCMNT-30,25	30.25	301	180	3
PRPCMNT-30,50	30.5	301	180	3
PRPCMNT-30,75	30.75	301	180	3
PRPCMNT-31,00	31	301	180	3
PRPCMNT-31,25	31.25	301	180	3
PRPCMNT-31,50	31.5	301	180	3
PRPCMNT-31,75	31.75	306	185	3
PRPCMNT-32,00	32.0	334	185	4
PRPCMNT-32,50	32.5	334	185	4
PRPCMNT-33,00	33.0	334	185	4
PRPCMNT-33,50	33.5	334	185	4
PRPCMNT-34,00	34.0	339	190	4
PRPCMNT-34,50	34.5	339	190	4
PRPCMNT-35,00	35.0	339	190	4
PRPCMNT-35,50	35.5	339	190	4
PRPCMNT-36,00	36.0	344	195	4
PRPCMNT-36,50	36.5	344	195	4
PRPCMNT-37,00	37.0	344	195	4
PRPCMNT-37,50	37.5	344	195	4
PRPCMNT-38,00	38.0	349	200	4
PRPCMNT-38,50	38.5	349	200	4
PRPCMNT-39,00	39.0	349	200	4
PRPCMNT-39,50	39.5	349	200	4
PRPCMNT-40,00	40.0	349	200	4

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCMNT-40,50	40.5	354	205	4
PRPCMNT-41,00	41.0	354	205	4
PRPCMNT-41,50	41.5	354	205	4
PRPCMNT-42,00	42.0	354	205	4
PRPCMNT-42,50	42.5	354	205	4
PRPCMNT-43,00	43.0	359	210	4
PRPCMNT-43,50	43.5	359	210	4
PRPCMNT-44,00	44.0	359	210	4
PRPCMNT-44,50	44.5	359	210	4
PRPCMNT-45,00	45.0	359	210	4
PRPCMNT-45,50	45.5	364	215	4
PRPCMNT-46,00	46.0	364	215	4
PRPCMNT-46,50	46.5	364	215	4
PRPCMNT-47,00	47.0	364	215	4
PRPCMNT-47,50	47.5	364	215	4
PRPCMNT-48,00	48.0	369	220	4
PRPCMNT-48,50	48.5	369	220	4
PRPCMNT-49,00	49.0	369	220	4
PRPCMNT-49,50	49.5	369	220	4
PRPCMNT-50,00	50.0	369	220	4
PRPCMNT-50,50	50.5	374	225	4
PRPCMNT-51,00	51.0	412	225	5
PRPCMNT-52,00	52.0	412	225	5
PRPCMNT-53,00	53.0	412	225	5
PRPCMNT-54,00	54.0	417	230	5
PRPCMNT-55,00	55.0	417	230	5
PRPCMNT-56,00	56.0	417	230	5
PRPCMNT-57,00	57.0	422	235	5
PRPCMNT-58,00	58.0	422	235	5
PRPCMNT-59,00	59.0	422	235	5
PRPCMNT-60,00	60.0	422	235	5

Punte elicoidali cono morse **Extra Lunghe**

Morse taper shank twist drills **Extra Long**

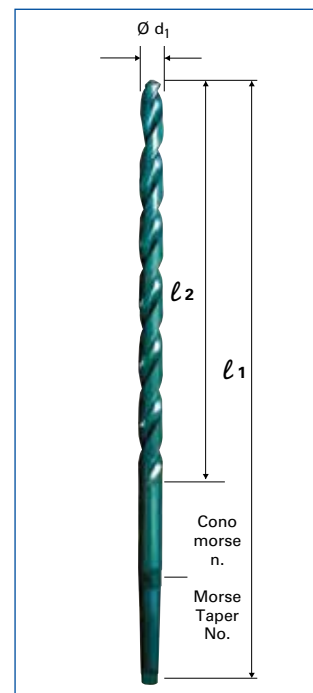
Spiralbohrer mit Morsekegelschaft **Überlang**

DIN 1870/1
HSS
20°-30°
1-4
h8
118°
P. 158

Applicazioni: - Studiata per forature profonde o per forature difficili da raggiungere, per forare acciaio, fusioni di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.

Application: - Designed for drilling deep holes or deeply located holes:
- Drilling into steel, cast steel alloyed and non-alloyed, grey castiron malleable castiron, Spheroidal graphite castiron, sintered iron, aluminium and aluminium alloys.

Verwendung: - Standardbohrer zum bohren extreme tiefer Löcher.
- Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen und Graphite.



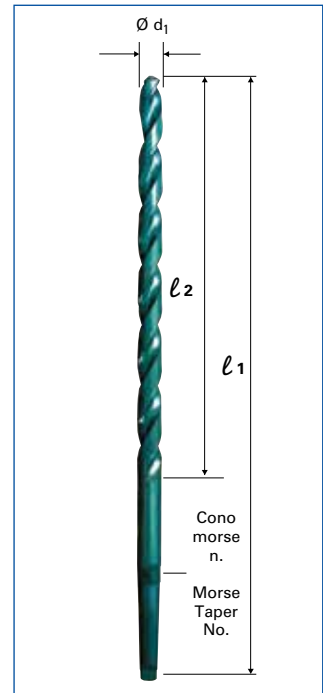
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCE1N-13,00	13.0	310	205	1
PRPCE1N-13,50	13.5	325	220	1
PRPCE1N-14,00	14.0	325	220	1
PRPCE1N-14,50	14.5	340	220	2
PRPCE1N-15,00	15.0	340	220	2
PRPCE1N-15,50	15.5	355	230	2
PRPCE1N-16,00	16.0	355	230	2
PRPCE1N-16,50	16.5	355	230	2
PRPCE1N-17,00	17.0	355	230	2
PRPCE1N-17,50	17.5	370	245	2
PRPCE1N-18,00	18.0	370	245	2
PRPCE1N-18,50	18.5	370	245	2
PRPCE1N-19,00	19.0	370	245	2
PRPCE1N-19,50	19.5	385	260	2
PRPCE1N-20,00	20.0	385	260	2
PRPCE1N-20,50	20.5	385	260	2
PRPCE1N-21,00	21.0	385	260	2
PRPCE1N-21,50	21.5	405	270	2
PRPCE1N-22,00	22.0	405	270	2
PRPCE1N-22,50	22.5	405	270	2
PRPCE1N-23,00	23.0	405	270	2
PRPCE1N-23,50	23.5	425	270	3
PRPCE1N-24,00	24.0	440	290	3
PRPCE1N-24,50	24.5	440	290	3
PRPCE1N-25,00	24.0	440	290	3
PRPCE1N-25,50	24.5	440	290	3
PRPCE1N-26,00	26.0	440	290	3
PRPCE1N-26,50	26.5	440	290	3

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCE1N-27,00	27.0	460	305	3
PRPCE1N-27,50	27.5	460	305	3
PRPCE1N-28,00	28.0	460	305	3
PRPCE1N-28,50	28.5	460	305	3
PRPCE1N-29,00	29.0	460	305	3
PRPCE1N-29,50	29.5	460	305	3
PRPCE1N-30,00	30.0	460	305	3
PRPCE1N-30,50	30.5	480	320	3
PRPCE1N-31,00	31.0	480	320	3
PRPCE1N-32,00	32.0	505	320	4
PRPCE1N-33,00	33.0	505	320	4
PRPCE1N-34,00	34.0	530	340	4
PRPCE1N-35,00	35.0	530	340	4
PRPCE1N-36,00	36.0	530	340	4
PRPCE1N-37,00	37.0	530	340	4
PRPCE1N-38,00	38.0	555	360	4
PRPCE1N-39,00	39.0	555	360	4
PRPCE1N-40,00	40.0	555	360	4
PRPCE1N-41,00	41.0	555	360	4
PRPCE1N-42,00	42.0	555	360	4
PRPCE1N-43,00	43.0	585	385	4
PRPCE1N-44,00	44.0	585	385	4
PRPCE1N-45,00	45.0	585	385	4
PRPCE1N-46,00	46.0	585	385	4
PRPCE1N-47,00	47.0	585	385	4
PRPCE1N-48,00	48.0	605	405	4
PRPCE1N-49,00	49.0	605	405	4
PRPCE1N-50,00	50.0	605	405	4

Punte elicoidali cono morse **Extra Lunghe**

Morse taper shank twist drills **Extra Long**

Spiralbohrer mit Morsekegelschaft **Überlang**



DIN
1870/2

HSS

N
20°-30°

1-4

h8

118°

P. 158

- Applicazioni:**
- Studiata per forature profonde o per forature difficili da raggiungere, per forare acciaio, fusioni di acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata e grafite.
- Application:**
- Designed for drilling deep holes or deeply located holes:
 - Drilling into steel, cast steel alloyed and non-alloyed, grey castiron malleable castiron, Spheroidal graphite castiron, sintered iron, aluminium and aluminium alloys.
- Verwendung:**
- Standardbohrer zum bohren extreme tiefer Löcher.
 - Zum bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen und Graphite.

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm	N. Cono morse Morse Taper No.
PRPCE2N-13,00	13.0	395	260	1
PRPCE2N-13,50	13.5	410	275	1
PRPCE2N-14,00	14.0	410	275	1
PRPCE2N-14,50	14.5	425	275	2
PRPCE2N-15,00	15.0	425	275	2
PRPCE2N-15,50	15.5	445	295	2
PRPCE2N-16,00	16.0	445	295	2
PRPCE2N-16,50	16.5	445	295	2
PRPCE2N-17,00	17.0	445	295	2
PRPCE2N-17,50	17.5	465	310	2
PRPCE2N-18,00	18.0	465	310	2
PRPCE2N-18,50	18.5	465	310	2
PRPCE2N-19,00	19.0	465	310	2
PRPCE2N-19,50	19.5	490	325	2
PRPCE2N-20,00	20.0	490	325	2
PRPCE2N-20,50	20.5	490	325	2
PRPCE2N-21,00	21.0	490	325	2
PRPCE2N-21,50	21.5	515	345	2
PRPCE2N-22,00	22.0	515	345	2
PRPCE2N-22,50	22.5	515	345	2
PRPCE2N-23,00	23.0	515	345	2
PRPCE2N-23,50	23.5	535	345	3
PRPCE2N-24,00	24.0	555	365	3
PRPCE2N-24,50	24.5	555	365	3
PRPCE2N-25,00	25.0	555	365	3
PRPCE2N-25,50	25.5	555	365	3
PRPCE2N-26,00	26.0	555	365	3
PRPCE2N-26,50	26.5	555	365	3

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm	N. Cono morse Morse Taper No.
PRPCE2N-27,00	27.0	580	385	3
PRPCE2N-27,50	27.5	580	385	3
PRPCE2N-28,00	28.0	580	385	3
PRPCE2N-28,50	28.5	580	385	3
PRPCE2N-29,00	29.0	580	385	3
PRPCE2N-29,50	29.5	580	385	3
PRPCE2N-30,00	30.0	580	385	3
PRPCE2N-31,00	31.0	610	410	3
PRPCE2N-32,00	32.0	635	410	4
PRPCE2N-33,00	33.0	635	410	4
PRPCE2N-34,00	34.0	665	430	4
PRPCE2N-35,00	35.0	665	430	4
PRPCE2N-36,00	36.0	665	430	4
PRPCE2N-37,00	37.0	665	430	4
PRPCE2N-38,00	38.0	695	460	4
PRPCE2N-39,00	39.0	695	460	4
PRPCE2N-40,00	40.0	695	460	4
PRPCE2N-41,00	41.0	695	460	4
PRPCE2N-42,00	42.0	695	460	4
PRPCE2N-43,00	43.0	735	490	4
PRPCE2N-44,00	44.0	735	490	4
PRPCE2N-45,00	45.0	735	490	4
PRPCE2N-46,00	46.0	735	490	4
PRPCE2N-47,00	47.0	735	490	4
PRPCE2N-48,00	48.0	765	510	4
PRPCE2N-49,00	49.0	765	510	4
PRPCE2N-50,00	50.0	765	510	4

Punte elicoidali cono morse per fori profondi **Extra Lunghe**

Morse taper shank twist drills for deep hole **Extra Long**

Spiralbohrer für tiefloch mit Zylinderschaft **Überlang**

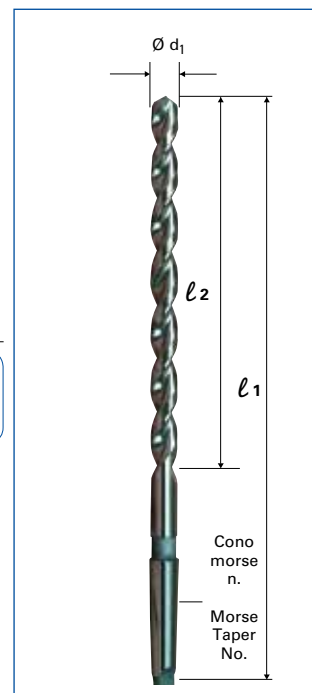
DIN 1870/1
HSSCo5
38°
1~3
h8
130°
P. 161

GH100
Elica per fori profondi • Worm pattern drills

Applicazioni: - Studiata per forature profonde o per forature difficili da raggiungere, per forare acciaio legato e non, ghisa grigia, ghisa malleabile, ghisa temprata, leghe di alluminio, leghe di magnesio, bronzo e ottone.

Application: - Designed for drilling deep holes or deeply located holes.
- Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, Special aluminium or magnesium alloys.

Verwendung: - Standardbohrer zum bohren extreme tiefer Löcher.
- Zum bohren von legiertem und unlegiertem Stahl, Grauguß, Temperguß, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



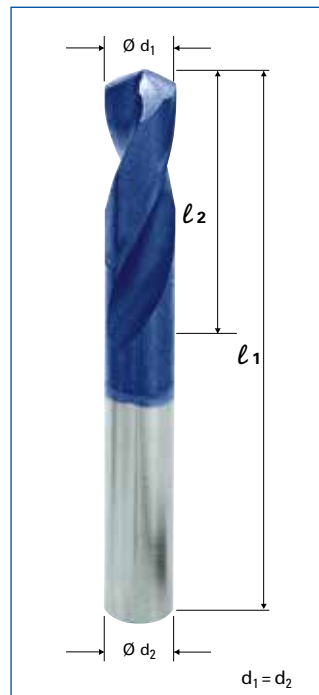
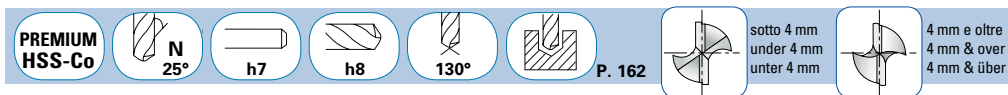
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCE1G-13,00	13.0	310	205	1
PRPCE1G-13,50	13.5	325	220	1
PRPCE1G-14,00	14.0	325	220	1
PRPCE1G-14,50	14.5	340	220	2
PRPCE1G-15,00	15.0	340	220	2
PRPCE1G-15,50	15.5	355	230	2
PRPCE1G-16,00	16.0	355	230	2
PRPCE1G-16,50	16.5	355	230	2
PRPCE1G-17,00	17.0	355	230	2
PRPCE1G-17,50	17.5	370	245	2
PRPCE1G-18,00	18.0	370	245	2
PRPCE1G-18,50	18.5	370	245	2
PRPCE1G-19,00	19.0	370	245	2
PRPCE1G-19,50	19.5	385	260	2
PRPCE1G-20,00	20.0	385	260	2
PRPCE1G-20,50	20.5	385	260	2
PRPCE1G-21,00	21.0	385	260	2
PRPCE1G-21,50	21.5	405	270	2

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	N. Cono morse Morse Taper No.
PRPCE1G-22,00	22.0	405	270	2
PRPCE1G-22,50	22.5	405	270	2
PRPCE1G-23,00	23.0	405	270	2
PRPCE1G-23,50	23.5	425	270	3
PRPCE1G-24,00	24.0	440	290	3
PRPCE1G-24,50	24.5	440	290	3
PRPCE1G-25,00	25.0	440	290	3
PRPCE1G-25,50	25.5	440	290	3
PRPCE1G-26,00	26.0	440	290	3
PRPCE1G-26,50	26.5	440	290	3
PRPCE1G-27,00	27.0	460	305	3
PRPCE1G-27,50	27.5	460	305	3
PRPCE1G-28,00	28.0	460	305	3
PRPCE1G-28,50	28.5	460	305	3
PRPCE1G-29,00	29.0	460	305	3
PRPCE1G-29,50	29.5	460	305	3
PRPCE1G-30,00	30.0	460	305	3
PRPCE1G-31,00	31.0	480	320	3

Punte elicoidali cilindriche SHP **Extra Corte**

SHP twist drills **Stub**

SHP Spiralbohrer mit Zylinderschaft **Extra Kurz**



- Applicazioni:** - Studiata per precise forature su macchine CNC per forare materiali duri, acciaio legato per utensili, inconel, nimonico, ghisa, leghe di alluminio
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità, riduce le vibrazioni e le flessioni.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for accurate drilling on NC/CNC machines.
 - Drilling into hard and tough materials, alloyed tool steel, inconel, nimonico, cast iron, aluminium die cast, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Für präzises bohren mit NC/CNC Maschinen, geeignet zum bearbeiten von harten und zähen Werkstücken, Lagierungen, Werkzeugstahl, Nimonico, Iconel, Gusseisen, Aluminium-Guss usw.
- Vorteile:** - Durk Kreuzanschliff gute Spanentfernung, reduzierter Druck, verbesserte Genauigkeit, selbstzentriert, extra kurze Ausführung, verbesserte Stabilität, weniger Vibrationen und Abweichungen, Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.

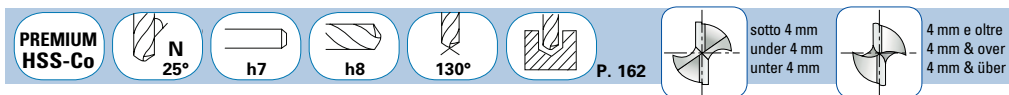
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECH-02,00	2.0	44	12
PRPECH-02,05	2.05	44	12
PRPECH-02,10	2.1	44	12
PRPECH-02,15	2.15	45	13
PRPECH-02,20	2.2	45	13
PRPECH-02,25	2.25	45	13
PRPECH-02,30	2.3	45	13
PRPECH-02,35	2.35	45	13
PRPECH-02,40	2.4	46	14
PRPECH-02,45	2.45	46	14
PRPECH-02,50	2.5	46	14
PRPECH-02,55	2.55	46	14
PRPECH-02,60	2.6	46	14
PRPECH-02,65	2.65	46	14
PRPECH-02,70	2.7	48	16
PRPECH-02,75	2.75	48	16
PRPECH-02,80	2.8	48	16
PRPECH-02,85	2.85	48	16
PRPECH-02,90	2.9	48	16
PRPECH-02,95	2.95	48	16
PRPECH-03,00	3.0	48	16
PRPECH-03,05	3.05	50	18
PRPECH-03,10	3.1	50	18
PRPECH-03,15	3.15	50	18

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECH-03,20	3.2	50	18
PRPECH-03,25	3.25	50	18
PRPECH-03,30	3.3	50	18
PRPECH-03,55	3.35	50	18
PRPECH-03,40	3.4	52	20
PRPECH-03,45	3.45	52	20
PRPECH-03,50	3.5	52	20
PRPECH-03,65	3.55	52	20
PRPECH-03,60	3.6	52	20
PRPECH-03,65	3.65	52	20
PRPECH-03,70	3.7	52	20
PRPECH-03,75	3.75	52	20
PRPECH-03,80	3.8	54	22
PRPECH-03,85	3.85	54	22
PRPECH-03,90	3.9	54	22
PRPECH-03,95	3.95	54	22
PRPECH-04,00	4.0	54	22
PRPECH-04,05	4.05	66	22
PRPECH-04,10	4.1	66	22
PRPECH-04,15	4.15	66	22
PRPECH-04,20	4.2	66	22
PRPECH-04,25	4.25	66	22
PRPECH-04,30	4.3	68	24
PRPECH-04,35	4.35	68	24

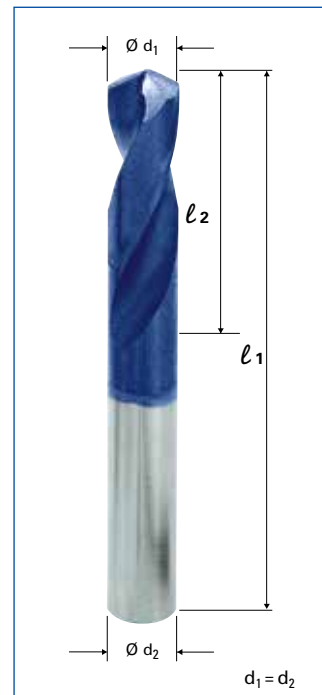
Punte elicoidali cilindriche SHP **Extra Corte**

SHP twist drills **Stub**

SHP Spiralbohrer mit Zylinderschaft **Extra Kurz**



- Applicazioni:** - Studiata per precise forature su macchine CNC per forare materiali duri, acciaio legato per utensili, inconel, nimonic, ghisa, leghe di alluminio
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità, riduce le vibrazioni e le flessioni.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for accurate drilling on NC/CNC machines.
 - Drilling into hard and tough materials, alloyed tool steel, inconel, nimonic, cast iron, aluminium die cast, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Für präzises bohren mit NC/CNC Maschinen, geeignet zum bearbeiten von harten und zähen Werkstücken, Lagierungen, Werkzeugstahl, Nimonic, Iconel, Gusseisen, Aluminium-Guss usw.
- Vorteile:** - Durk Kreuzanschliff gute Spanentfernung, reduzierter Druck, verbesserte Genauigkeit, selbstzentriert, extra kurze Ausführung, verbesserte Stabilität, weniger Vibrationen und Abweichungen, Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.



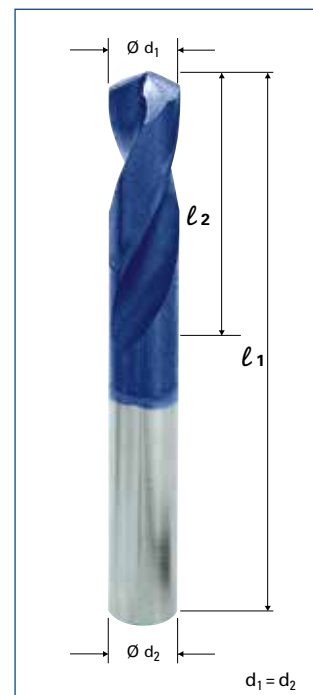
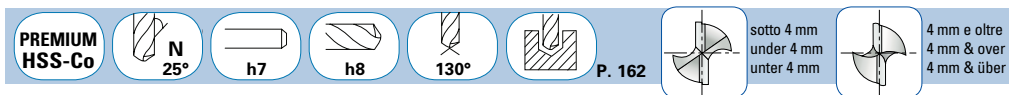
Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPECH-04,40	4.4	68	24
PRPECH-04,45	4.45	68	24
PRPECH-04,50	4.5	68	24
PRPECH-04,55	4.55	68	24
PRPECH-04,60	4.6	68	24
PRPECH-04,65	4.65	68	24
PRPECH-04,70	4.7	68	24
PRPECH-04,75	4.75	68	24
PRPECH-04,80	4.8	70	26
PRPECH-04,85	4.85	70	26
PRPECH-04,90	4.9	70	26
PRPECH-04,95	4.95	70	26
PRPECH-05,00	5.0	70	26
PRPECH-05,05	5.05	70	26
PRPECH-05,10	5.1	70	26
PRPECH-05,15	5.15	70	26
PRPECH-05,20	5.2	70	26
PRPECH-05,25	5.25	70	26
PRPECH-05,30	5.3	70	26
PRPECH-05,35	5.35	72	28
PRPECH-05,40	5.4	72	28
PRPECH-05,45	5.45	72	28
PRPECH-05,50	5.5	72	28
PRPECH-05,55	5.55	72	28
PRPECH-05,60	5.6	72	28

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPECH-05,65	5.65	72	28
PRPECH-05,70	5.7	72	28
PRPECH-05,75	5.75	72	28
PRPECH-05,80	5.8	72	28
PRPECH-05,85	5.85	72	28
PRPECH-05,90	5.9	72	28
PRPECH-05,95	5.95	72	28
PRPECH-06,00	6.0	72	28
PRPECH-06,10	6.1	75	31
PRPECH-06,20	6.2	75	31
PRPECH-06,30	6.3	75	31
PRPECH-06,40	6.4	75	31
PRPECH-06,50	6.5	75	31
PRPECH-06,55	6.55	75	31
PRPECH-06,60	6.6	75	31
PRPECH-06,65	6.65	75	31
PRPECH-06,70	6.7	75	31
PRPECH-06,80	6.8	78	34
PRPECH-06,90	6.9	78	34
PRPECH-07,00	7.0	78	34
PRPECH-07,10	7.1	78	34
PRPECH-07,20	7.2	78	34
PRPECH-07,30	7.3	78	34
PRPECH-07,35	7.35	78	34

Punte elicoidali cilindriche SHP **Extra Corte**

SHP twist drills **Stub**

SHP Spiralbohrer mit Zylinderschaft **Extra Kurz**



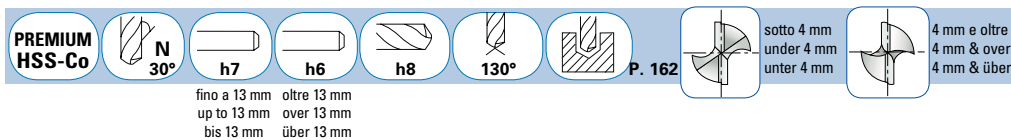
- Applicazioni:** - Studiata per precise forature su macchine CNC per forare materiali duri, acciaio legato per utensili, inconel, nimonin, ghisa, leghe di alluminio
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità, riduce le vibrazioni e le flessioni.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for accurate drilling on NC/CNC machines.
 - Drilling into hard and tough materials, alloyed tool steel, inconel, nimonin, cast iron, aluminium die cast, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Für präzises bohren mit NC/CNC Maschinen, geeignet zum bearbeiten von harten und zähen Werkstücken, Lagerungen, Werkzeugstahl, Nimonin, Iconel, Gusseisen, Aluminium-Guss usw.
- Vorteile:** - Durk Kreuzanschliff gute Spanentfernung, reduzierter Druck, verbesserte Genauigkeit, selbstzentriert, extra kurze Ausführung, verbesserte Stabilität, weniger Vibrationen und Abweichungen, Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.

Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm	Codice N. Nr. Code	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPECH-07,40	7.4	78	34	PRPECH-09,25	9.25	90	40
PRPECH-07,50	7.5	78	34	PRPECH-09,30	9.3	90	40
PRPECH-07,55	7.55	81	37	PRPECH-09,35	9.35	90	40
PRPECH-07,60	7.6	81	37	PRPECH-09,40	9.4	90	40
PRPECH-07,65	7.65	81	37	PRPECH-09,45	9.45	90	40
PRPECH-07,70	7.7	81	37	PRPECH-09,50	9.5	90	40
PRPECH-07,80	7.8	81	37	PRPECH-09,55	9.55	93	43
PRPECH-07,90	7.9	81	37	PRPECH-09,60	9.6	93	43
PRPECH-08,00	8.0	81	37	PRPECH-09,65	9.65	93	43
PRPECH-08,10	8.1	87	37	PRPECH-09,70	9.7	93	43
PRPECH-08,20	8.2	87	37	PRPECH-09,80	9.8	93	43
PRPECH-08,30	8.3	87	37	PRPECH-09,90	9.9	93	43
PRPECH-08,35	8.35	87	37	PRPECH-09,95	9.95	93	43
PRPECH-08,40	8.4	87	37	PRPECH-10,00	10.0	93	43
PRPECH-08,50	8.5	87	37	PRPECH-10,10	10.1	100	43
PRPECH-08,55	8.55	90	40	PRPECH-10,20	10.2	100	43
PRPECH-08,60	8.6	90	40	PRPECH-10,25	10.25	100	43
PRPECH-08,65	8.65	90	40	PRPECH-10,30	10.3	100	43
PRPECH-08,70	8.7	90	40	PRPECH-10,35	10.35	100	43
PRPECH-08,80	8.8	90	40	PRPECH-10,40	10.4	100	43
PRPECH-08,90	8.9	90	40	PRPECH-10,50	10.5	100	43
PRPECH-09,00	9.0	90	40	PRPECH-10,55	10.55	100	43
PRPECH-09,10	9.1	90	40	PRPECH-10,60	10.6	100	43
PRPECH-09,20	9.2	90	40	PRPECH-10,65	10.65	104	47

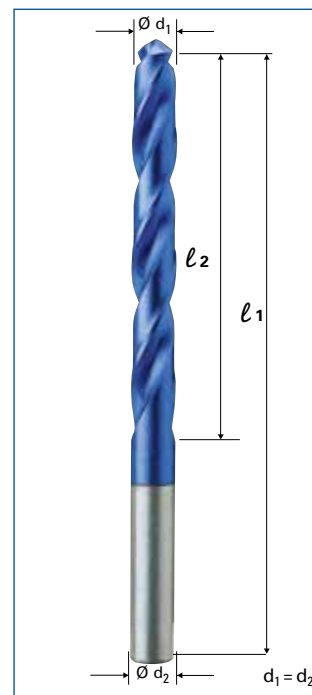
Punte elicoidali cilindriche SHP Corte

SHP twist drills Stub

SHP Spiralbohrer mit Zylinderschaft Kurz



- Applicazioni:** - Studiata per forature ad alta velocità senza step per 4D~5D.
 - Per forare acciaio legato, acciaio da utensili, ghisa, alluminio, ecc..
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità ed è adatta per forature 4D~5D.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for high speed non-step 4D~5D drilling.
 - Drilling in mild steel, cast iron, aluminium, alloyed tool steel, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity and suitable for 4D~5D drilling.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum bearbeiten von Stahl, Gusseisen, Aluminium, Lagierungen, Werkzeugstahl, usw.
- Vorteile:** - Gute Spanentfernung selbstzentriert, geringere Abweichungen und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, Zum Bearbeiten von Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



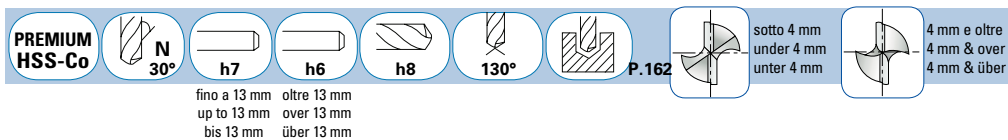
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-02,00	2.0	56	24
PRPCH-02,05	2.05	56	24
PRPCH-02,10	2.1	56	24
PRPCH-02,15	2.15	59	27
PRPCH-02,20	2.2	59	27
PRPCH-02,25	2.25	59	27
PRPCH-02,30	2.3	59	27
PRPCH-02,35	2.35	59	27
PRPCH-02,40	2.4	62	30
PRPCH-02,45	2.45	62	30
PRPCH-02,50	2.5	62	30
PRPCH-02,55	2.55	62	30
PRPCH-02,60	2.6	62	30
PRPCH-02,65	2.65	62	30
PRPCH-02,70	2.7	65	33
PRPCH-02,75	2.75	65	33
PRPCH-02,80	2.8	65	33
PRPCH-02,85	2.85	65	33
PRPCH-02,90	2.9	65	33
PRPCH-02,95	2.95	65	33
PRPCH-03,00	3.0	65	33
PRPCH-03,05	3.05	68	36
PRPCH-03,10	3.1	68	36
PRPCH-03,15	3.15	68	36
PRPCH-03,20	3.2	68	36

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-03,25	3.25	68	36
PRPCH-03,30	3.3	68	36
PRPCH-03,35	3.35	68	36
PRPCH-03,40	3.4	71	39
PRPCH-03,45	3.45	71	39
PRPCH-03,50	3.5	71	39
PRPCH-03,55	3.55	71	39
PRPCH-03,60	3.6	71	39
PRPCH-03,65	3.65	71	39
PRPCH-03,70	3.7	71	39
PRPCH-03,75	3.75	71	39
PRPCH-03,80	3.8	75	43
PRPCH-03,85	3.85	75	43
PRPCH-03,90	3.9	75	43
PRPCH-03,95	3.95	75	43
PRPCH-04,00	4.0	75	43
PRPCH-04,05	4.05	87	43
PRPCH-04,10	4.1	87	43
PRPCH-04,15	4.15	87	43
PRPCH-04,20	4.2	87	43
PRPCH-04,25	4.25	87	43
PRPCH-04,30	4.3	91	47
PRPCH-04,35	4.35	91	47
PRPCH-04,40	4.4	91	47
PRPCH-04,45	4.45	91	47

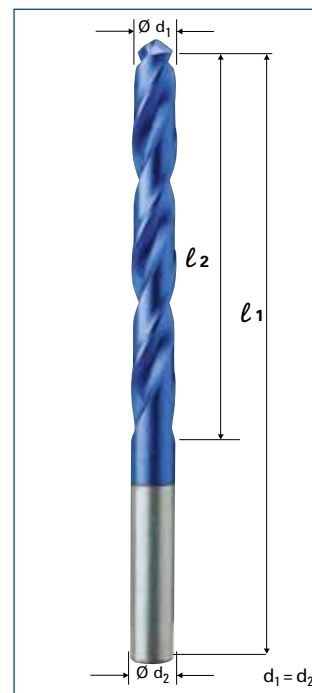
Punte elicoidali cilindriche SHP Corte

SHP twist drills Stub

SHP Spiralbohrer mit Zylinderschaft Kurz



- Applicazioni:** - Studiata per forature ad alta velocità senza step per 4D~5D.
 - Per forare acciaio legato, acciaio da utensili, ghisa, alluminio, ecc..
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità ed è adatta per forature 4D~5D.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for high speed non-step 4D-5D drilling.
 - Drilling in mild steel, cast iron, aluminium, alloyed tool steel, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity and suitable for 4D-5D drilling.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum bearbeiten von Stahl, Gusseisen, Aluminium, Lagierungen, Werkzeugstahl, usw.
- Vorteile:** - Gute Spanentfernung selbstzentriert, geringere Abweichungen und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, Zum Bearbeiten von Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



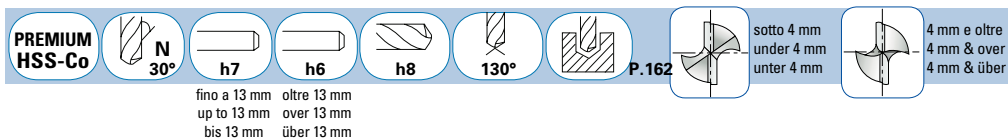
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-04,50	4.5	91	47
PRPCH-04,55	4.55	91	47
PRPCH-04,60	4.6	91	47
PRPCH-04,65	4.65	91	47
PRPCH-04,70	4.7	91	47
PRPCH-04,75	4.75	91	47
PRPCH-04,80	4.8	96	52
PRPCH-04,85	4.85	96	52
PRPCH-04,90	4.9	96	52
PRPCH-04,95	4.95	96	52
PRPCH-05,00	5.0	96	52
PRPCH-05,05	5.05	96	52
PRPCH-05,10	5.1	96	52
PRPCH-05,15	5.15	96	52
PRPCH-05,20	5.2	96	52
PRPCH-05,25	5.25	96	52
PRPCH-05,30	5.3	96	52
PRPCH-05,35	5.35	101	57
PRPCH-05,40	5.4	101	57
PRPCH-05,45	5.45	101	57
PRPCH-05,50	5.5	101	57
PRPCH-05,55	5.55	101	57
PRPCH-05,60	5.6	101	57
PRPCH-06,65	5.65	101	57
PRPCH-05,70	5.7	101	57

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-05,75	5.75	101	57
PRPCH-05,80	5.8	101	57
PRPCH-05,85	5.85	101	57
PRPCH-05,90	5.9	101	57
PRPCH-05,95	5.95	101	57
PRPCH-06,00	6.0	101	57
PRPCH-06,05	6.05	107	63
PRPCH-06,10	6.1	107	63
PRPCH-06,15	6.15	107	63
PRPCH-06,20	6.2	107	63
PRPCH-06,25	6.25	107	63
PRPCH-06,30	6.3	107	63
PRPCH-06,35	6.35	107	63
PRPCH-06,40	6.4	107	63
PRPCH-06,45	6.45	107	63
PRPCH-06,50	6.5	107	63
PRPCH-06,55	6.55	107	63
PRPCH-06,60	6.6	107	63
PRPCH-06,65	6.65	107	63
PRPCH-06,70	6.7	107	63
PRPCH-06,75	6.75	113	69
PRPCH-06,80	6.8	113	69
PRPCH-06,85	6.85	113	69
PRPCH-06,90	6.9	113	69
PRPCH-06,95	6.95	113	69

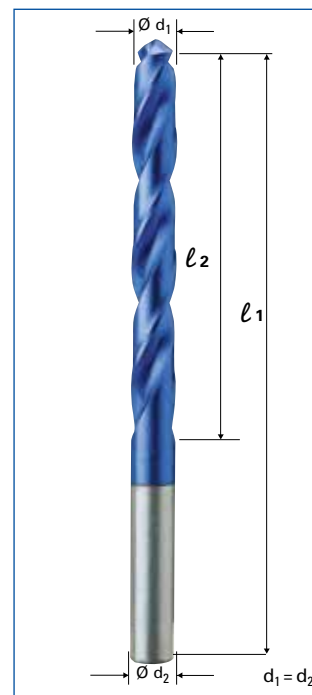
Punte elicoidali cilindriche SHP Corte

SHP twist drills Stub

SHP Spiralbohrer mit Zylinderschaft Kurz



- Applicazioni:** - Studiata per forature ad alta velocità senza step per 4D~5D.
 - Per forare acciaio legato, acciaio da utensili, ghisa, alluminio, ecc..
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità ed è adatta per forature 4D~5D.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for high speed non-step 4D-5D drilling.
 - Drilling in mild steel, cast iron, aluminium, alloyed tool steel, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity and suitable for 4D-5D drilling.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Zum Hochgeschwindigkeitsbohren 4D-5D Bohrtiefe geeignet zum bearbeiten von Stahl, Gusseisen, Aluminium, Lagerungen, Werkzeugstahl, usw.
- Vorteile:** - Gute Spanentfernung selbstzentriert, geringere Abweichungen und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, Zum Bearbeiten von Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



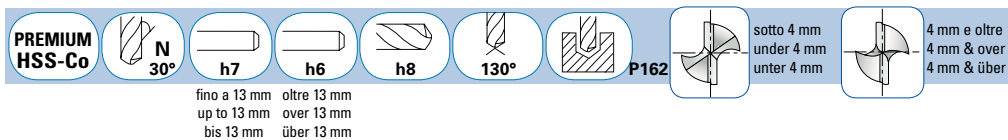
Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPCH-07,00	7.0	113	69
PRPCH-07,05	7.05	113	69
PRPCH-07,10	7.1	113	69
PRPCH-07,15	7.15	113	69
PRPCH-07,20	7.2	113	69
PRPCH-07,25	7.25	113	69
PRPCH-07,30	7.3	113	69
PRPCH-07,35	7.35	113	69
PRPCH-07,40	7.4	113	69
PRPCH-07,45	7.45	113	69
PRPCH-07,50	7.5	113	69
PRPCH-07,55	7.55	119	75
PRPCH-07,60	7.6	119	75
PRPCH-07,65	7.65	119	75
PRPCH-07,70	7.7	119	75
PRPCH-07,75	7.75	119	75
PRPCH-07,80	7.8	119	75
PRPCH-07,85	7.85	119	75
PRPCH-07,90	7.9	119	75
PRPCH-07,95	7.95	119	75
PRPCH-08,00	8.0	119	75
PRPCH-08,05	8.05	125	75
PRPCH-08,10	8.1	125	75
PRPCH-08,15	8.15	125	75
PRPCH-08,20	8.2	125	75

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPCH-08,25	8.25	125	75
PRPCH-08,30	8.3	125	75
PRPCH-08,35	8.35	125	75
PRPCH-08,40	8.4	125	75
PRPCH-08,45	8.45	125	75
PRPCH-08,50	8.5	125	75
PRPCH-08,55	8.55	131	81
PRPCH-08,60	8.6	131	81
PRPCH-08,65	8.65	131	81
PRPCH-08,70	8.7	131	81
PRPCH-08,75	8.75	131	81
PRPCH-08,80	8.8	131	81
PRPCH-08,85	8.85	131	81
PRPCH-08,90	8.9	131	81
PRPCH-08,95	8.95	131	81
PRPCH-09,00	9.0	131	81
PRPCH-09,05	9.05	131	81
PRPCH-09,10	9.1	131	81
PRPCH-09,15	9.15	131	81
PRPCH-09,20	9.2	131	81
PRPCH-09,25	9.25	131	81
PRPCH-09,30	9.3	131	81
PRPCH-09,35	9.35	131	81
PRPCH-09,40	9.4	131	81
PRPCH-09,45	9.45	131	81

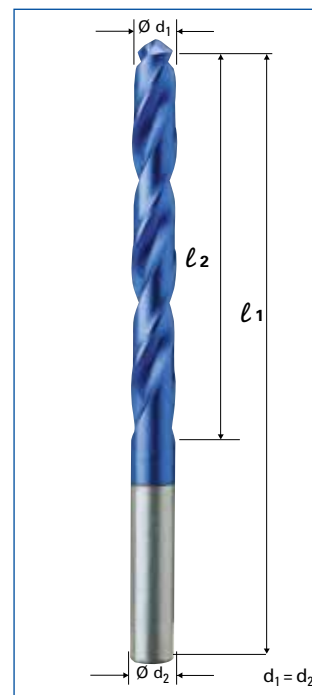
Punte elicoidali cilindriche SHP Corte

SHP twist drills Stub

SHP Spiralbohrer mit Zylinderschaft Kurz



- Applicazioni:** - Studiata per forature ad alta velocità senza step per 4D~5D.
 - Per forare acciaio legato, acciaio da utensili, ghisa, alluminio, ecc..
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità ed è adatta per forature 4D~5D.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for high speed non-step 4D~5D drilling.
 - Drilling in mild steel, cast iron, aluminium, alloyed tool steel, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity and suitable for 4D~5D drilling.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum bearbeiten von Stahl, Gusseisen, Aluminium, Lagerungen, Werkzeugstahl, usw.
- Vorteile:** - Gute Spanentfernung selbstzentriert, geringere Abweichungen und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, Zum Bearbeiten von Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



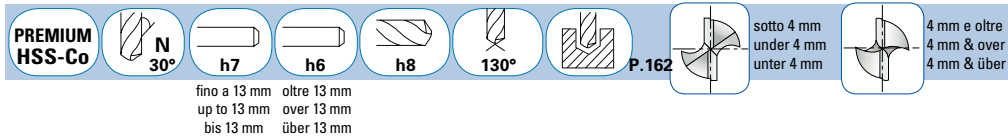
Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPCH-09,50	9.5	131	81
PRPCH-09,55	9.55	137	87
PRPCH-09,60	9.6	137	87
PRPCH-09,65	9.65	137	87
PRPCH-09,70	9.7	137	87
PRPCH-09,75	9.75	137	87
PRPCH-09,80	9.8	137	87
PRPCH-09,85	9.85	137	87
PRPCH-09,90	9.90	137	87
PRPCH-09,95	9.95	137	87
PRPCH-10,00	10.0	137	87
PRPCH-10,05	10.05	144	87
PRPCH-10,10	10.1	144	87
PRPCH-10,15	10.15	144	87
PRPCH-10,20	10.2	144	87
PRPCH-10,25	10.25	144	87
PRPCH-10,30	10.3	144	87
PRPCH-10,35	10.35	144	87
PRPCH-10,40	10.4	144	87
PRPCH-10,45	10.45	144	87
PRPCH-10,50	10.5	144	87
PRPCH-10,55	10.55	144	87
PRPCH-10,60	10.6	144	87
PRPCH-10,65	10.65	151	94
PRPCH-10,70	10.7	151	94

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPCH-10,75	10.75	151	94
PRPCH-10,80	10.8	151	94
PRPCH-10,85	10.85	151	94
PRPCH-10,90	10.9	151	94
PRPCH-10,95	10.95	151	94
PRPCH-11,00	11.0	151	94
PRPCH-11,05	11.05	151	94
PRPCH-11,10	11.1	151	94
PRPCH-11,15	11.15	151	94
PRPCH-11,20	11.2	151	94
PRPCH-11,25	11.25	151	94
PRPCH-11,30	11.3	151	94
PRPCH-11,35	11.35	151	94
PRPCH-11,40	11.4	151	94
PRPCH-11,45	11.45	151	94
PRPCH-11,50	11.5	151	94
PRPCH-11,55	11.55	151	94
PRPCH-11,60	11.6	151	94
PRPCH-11,65	11.65	151	94
PRPCH-11,70	11.7	151	94
PRPCH-11,75	11.75	151	94
PRPCH-11,80	11.8	151	94
PRPCH-11,85	11.85	158	101
PRPCH-11,90	11.9	158	101
PRPCH-11,95	11.95	158	101

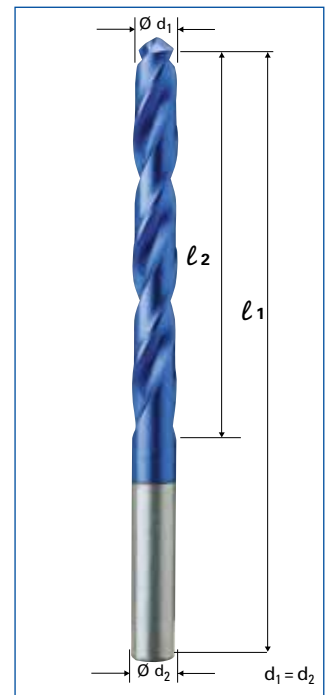
Punte elicoidali cilindriche SHP Corte

SHP twist drills Stub

SHP Spiralbohrer mit Zylinderschaft Kurz



- Applicazioni:** - Studiata per forature ad alta velocità senza step per 4D~5D.
 - Per forare acciaio legato, acciaio da utensili, ghisa, alluminio, ecc..
- Vantaggi:** - Elica con un'ottima evacuazione del truciolo, autocentrante, riduce lo sforzo e incrementa la durata.
 - Il nocciolo rinforzato incrementa la rigidità ed è adatta per forature 4D~5D.
 - L'acciaio premium HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.
- Application:** - Designed for high speed non-step 4D-5D drilling.
 - Drilling in mild steel, cast iron, aluminium, alloyed tool steel, etc.
- Advantage:** - Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
 - Reinforced web and stub length - increasing rigidity and suitable for 4D-5D drilling.
 - Premium Cobalt HSS with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.
- Anwendung:** - Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum bearbeiten von Stahl, Gusseisen, Aluminium, Lagierungen, Werkzeugstahl, usw.
- Vorteile:** - Gute Spanentfernung selbstzentriert, geringere Abweichungen und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, Zum Bearbeiten von Premium Kobalt HSS mit hochwertiger Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



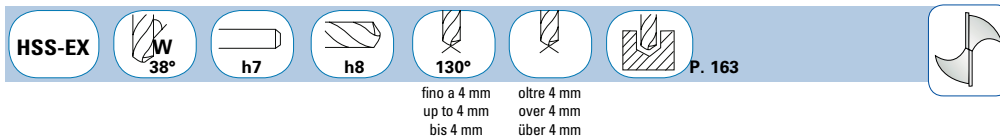
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-12,00	12.0	158	101
PRPCH-12,10	12.1	158	101
PRPCH-12,20	12.2	158	101
PRPCH-12,30	12.3	158	101
PRPCH-12,40	12.4	158	101
PRPCH-12,50	12.5	158	101
PRPCH-12,60	12.6	158	101
PRPCH-12,70	12.7	158	101
PRPCH-12,80	12.8	158	101
PRPCH-12,90	12.9	158	101
PRPCH-13,00	13.0	158	101
PRPCH-13,50	13.5	150	90
PRPCH-14,00	14.0	150	90
PRPCH-14,10	14.1	155	95
PRPCH-14,50	14.5	155	95

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCH-15,00	15.0	161	95
PRPCH-15,50	15.5	166	100
PRPCH-15,60	15.6	166	100
PRPCH-16,00	16.0	166	100
PRPCH-16,50	16.5	172	106
PRPCH-17,00	17.0	172	106
PRPCH-17,50	17.5	178	112
PRPCH-17,60	17.6	178	112
PRPCH-18,00	18.0	178	112
PRPCH-18,50	18.5	184	118
PRPCH-19,00	19.0	194	118
PRPCH-19,50	19.5	201	125
PRPCH-19,60	19.6	201	125
PRPCH-20,00	20.0	201	125

Punte elicoidali cilindriche SHP-Inox Extra Corte

SHP-Inox twist drills Stub

SHP-Inox Spiralbohrer mit Zylinderschaft Extra Kurz



Applicazioni: - Studiata per forature su acciaio Inox, alluminio, leghe di alluminio, alluminio pressofuso, rame, leghe di rame, ecc..

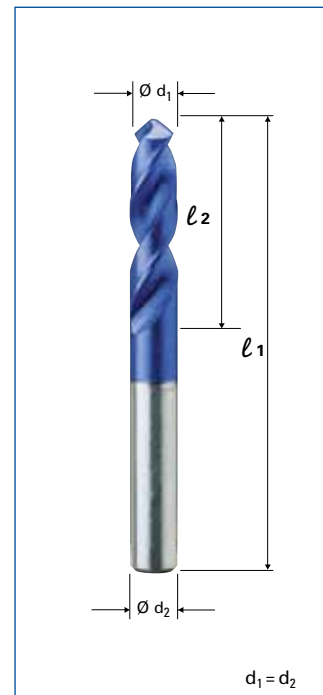
- Vantaggi:
- L'elica molto ritorta e l'affilata spoglia di taglio, permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
 - L'acciaio vanadio HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.

Application: - Designed for drilling in stainless steels, aluminium, aluminium alloy, aluminium die cast, copper, copper alloy, etc.

- Advantage:
- High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling.
 - Wide flute and stub length - increasing chip removal and reducing vibration and deflection.
 - High vanadium HSS-EX material with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.

Anwendung: - Geeignet zum bearbeiten von Edelstahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Lagierungen usw.

- Vorteile:
- Durch hohen Helix wird Spanstau vermieden, geeignet Zum Hochleistungsbohren, durch die breiten Schneiden und die kurze Ausführung wird die Spanentfernung erhöht und Vibrationen und Stoß reduziert. Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

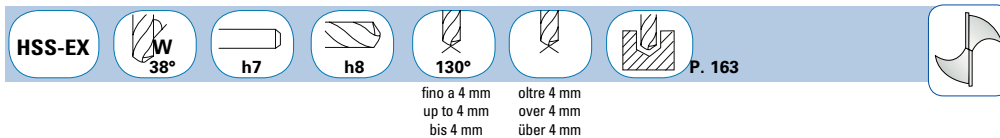
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECHS-02,00	2.0	44	12
PRPECHS-02,10	2.1	44	12
PRPECHS-02,20	2.2	45	13
PRPECHS-02,30	2.3	45	13
PRPECHS-02,40	2.4	46	14
PRPECHS-02,50	2.5	46	14
PRPECHS-02,60	2.6	46	14
PRPECHS-02,70	2.7	48	16
PRPECHS-02,80	2.8	48	16
PRPECHS-02,90	2.9	48	16
PRPECHS-03,00	3.0	48	16
PRPECHS-03,10	3.1	50	18
PRPECHS-03,20	3.2	50	18
PRPECHS-03,30	3.3	50	18
PRPECHS-03,40	3.4	52	20
PRPECHS-03,50	3.5	52	20
PRPECHS-03,60	3.6	52	20
PRPECHS-03,70	3.7	52	20
PRPECHS-03,80	3.8	54	22
PRPECHS-03,90	3.9	54	22
PRPECHS-04,00	4.0	54	22
PRPECHS-04,10	4.1	66	22
PRPECHS-04,20	4.2	66	22
PRPECHS-04,30	4.3	68	24

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECHS-04,40	4.4	68	24
PRPECHS-04,50	4.5	68	24
PRPECHS-04,60	4.6	68	24
PRPECHS-04,70	4.7	68	24
PRPECHS-04,80	4.8	70	26
PRPECHS-04,90	4.9	70	26
PRPECHS-05,00	5.0	70	26
PRPECHS-05,10	5.1	70	26
PRPECHS-05,20	5.2	70	26
PRPECHS-05,30	5.3	70	26
PRPECHS-05,40	5.4	72	28
PRPECHS-05,50	5.5	72	28
PRPECHS-05,60	5.6	72	28
PRPECHS-05,70	5.7	72	28
PRPECHS-05,80	5.8	72	28
PRPECHS-05,90	5.9	72	28
PRPECHS-06,00	6.0	72	28
PRPECHS-06,10	6.1	75	31
PRPECHS-06,20	6.2	75	31
PRPECHS-06,30	6.3	75	31
PRPECHS-06,40	6.4	75	31
PRPECHS-06,50	6.5	75	31
PRPECHS-06,60	6.6	75	31
PRPECHS-06,70	6.7	75	31

Punte elicoidali cilindriche SHP-Inox Extra Corte

SHP-Inox twist drills Stub

SHP-Inox Spiralbohrer mit Zylinderschaft Extra Kurz



Applicazioni: - Studiata per forature su acciaio Inox, alluminio, leghe di alluminio, alluminio pressofuso, rame, leghe di rame, ecc..

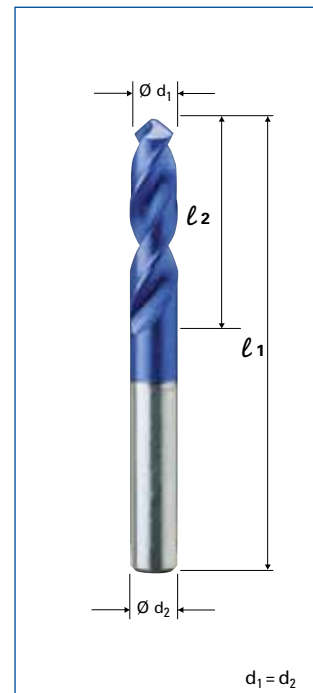
- Vantaggi:
- L'elica molto ritorta e l'affilata spoglia di taglio, permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
 - L'acciaio vanadio HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.

Application: - Designed for drilling in stainless steels, aluminium, aluminium alloy, aluminium die cast, copper, copper alloy, etc.

- Advantage:
- High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling.
 - Wide flute and stub length - increasing chip removal and reducing vibration and deflection.
 - High vanadium HSS-EX material with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.

Anwendung: - Geeignet zum bearbeiten von Edelstahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Lagierungen usw.

- Vorteile:
- Durch hohen Helix wird Spanstau vermieden, geeignet Zum Hochleistungsbohren, durch die breiten Schneiden und die kurze Ausführung wird die Spanentfernung erhöht und Vibrationen und Stoß reduziert. Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECHS-06,80	6.8	78	34
PRPECHS-06,90	6.9	78	34
PRPECHS-07,00	7.0	78	34
PRPECHS-07,10	7.1	78	34
PRPECHS-07,20	7.2	78	34
PRPECHS-07,30	7.3	78	34
PRPECHS-07,40	7.4	78	34
PRPECHS-07,50	7.5	78	34
PRPECHS-07,60	7.6	81	37
PRPECHS-07,70	7.7	81	37
PRPECHS-07,80	7.8	81	37
PRPECHS-07,90	7.9	81	37
PRPECHS-08,00	8.0	81	37
PRPECHS-08,10	8.1	87	37
PRPECHS-08,20	8.2	87	37
PRPECHS-08,30	8.3	87	37
PRPECHS-08,40	8.4	87	37
PRPECHS-08,50	8.5	87	37
PRPECHS-08,60	8.6	90	40
PRPECHS-08,70	8.7	90	40
PRPECHS-08,80	8.8	90	40
PRPECHS-08,90	8.9	90	40
PRPECHS-09,00	9.0	90	40
PRPECHS-09,10	9.1	90	40

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPECHS-09,20	9.2	90	40
PRPECHS-09,30	9.3	90	40
PRPECHS-09,40	9.4	90	40
PRPECHS-09,50	9.5	90	40
PRPECHS-09,60	9.6	93	43
PRPECHS-09,70	9.7	93	43
PRPECHS-09,80	9.8	93	43
PRPECHS-09,90	9.9	93	43
PRPECHS-10,00	10.0	93	43
PRPECHS-10,10	10.1	100	43
PRPECHS-10,20	10.2	100	43
PRPECHS-10,30	10.3	100	43
PRPECHS-10,40	10.4	100	43
PRPECHS-10,50	10.5	100	43
PRPECHS-10,60	10.6	100	43
PRPECHS-10,70	10.7	104	47
PRPECHS-10,80	10.8	104	47
PRPECHS-10,90	10.9	104	47
PRPECHS-11,00	11.0	104	47
PRPECHS-11,10	11.1	104	47
PRPECHS-11,20	11.2	104	47
PRPECHS-11,30	11.3	104	47
PRPECHS-11,40	11.4	104	47
PRPECHS-11,50	11.5	104	47

Punte elicoidali cilindriche SHP-Inox **Extra Corte**

SHP-Inox twist drills **Stub**

SHP-Inox Spiralbohrer mit Zylinderschaft **Extra Kurz**



Applicazioni: - Studiata per forature su acciaio Inox, alluminio, leghe di alluminio, alluminio pressofuso, rame, leghe di rame, ecc..

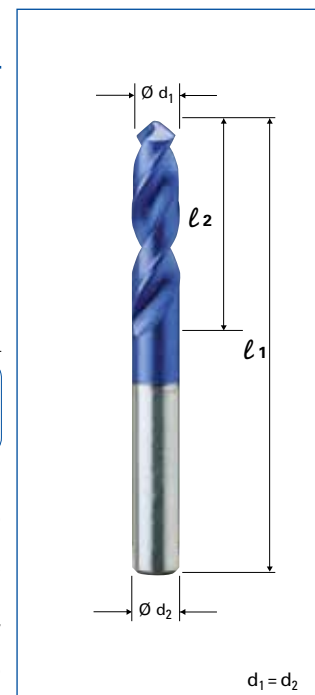
- Vantaggi:**
- L'elica molto ritorta e l'affilata spoglia di taglio, permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
 - L'acciaio vanadio HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.

Application: - Designed for drilling in stainless steels, aluminium, aluminium alloy, aluminium die cast, copper, copper alloy, etc.

- Advantage:**
- High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling.
 - Wide flute and stub length - increasing chip removal and reducing vibration and deflection.
 - High vanadium HSS-EX material with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.

Anwendung: - Geeignet zum bearbeiten von Edelstahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Lagierungen usw.

- Vorteile:**
- Durch hohen Helix wird Spanstau vermieden, geeignet Zum Hochleistungsbohren, durch die breiten Schneiden und die kurze Ausführung wird die Spanentfernung erhöht und Vibrationen und Stoß reduziert. Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Oberflächengüte und Produktivität.



**per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE**

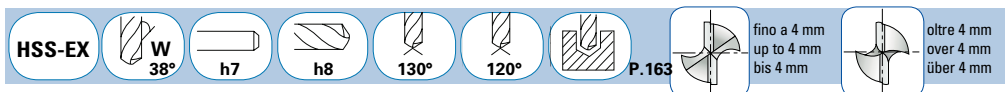
Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPECHS-11,60	11.6	104	47
PRPECHS-11,70	11.7	104	47
PRPECHS-11,80	11.8	104	47
PRPECHS-11,90	11.9	108	51
PRPECHS-12,00	12.0	108	51
PRPECHS-12,10	12.1	108	51
PRPECHS-12,20	12.2	108	51
PRPECHS-12,30	12.3	108	51

Codice N. Nr. Code	Ø d1 mm	l1 mm	l2 mm
PRPECHS-12,40	12.4	108	51
PRPECHS-12,50	12.5	108	51
PRPECHS-12,60	12.6	108	51
PRPECHS-12,70	12.7	108	51
PRPECHS-12,80	12.8	108	51
PRPECHS-12,90	12.9	108	51
PRPECHS-13,00	13.0	108	51

Punte elicoidali cilindriche SHP-Inox Corte

SHP-Inox twist drills Jobber

SHP-Inox Spiralbohrer mit Zylinderschaft Kurz



Applicazioni: - Studiata per forare senza step per 4D-5D. Per forare acciaio Inox, alluminio, alluminio legato, alluminio pressofuso, rame, lega di rame, ecc..

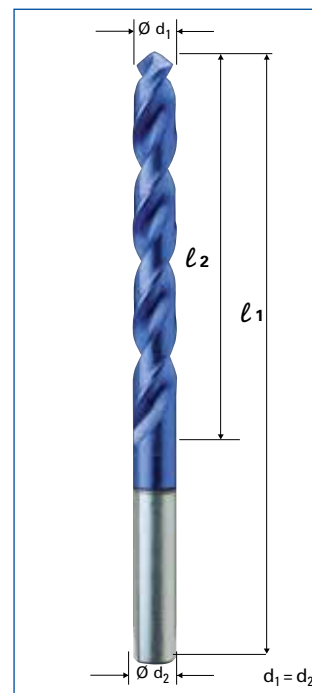
Vantaggi: - L'elica molto ritorta e l'affilata spoglia di taglio permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
 - L'acciaio vanadio HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.

Application: - Designed for 4D-5D drilling in stainless steels, mild steels, aluminium, aluminium alloy, aluminium die cast, cooper, cooper alloy, etc.

Advantage: - High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling.
 - Reinforced web and jobbers length-increasing rigidity and suitable for 4D-5D drilling.
 - High vanadium HSS-EX material with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.

Anwendung: - Für 4D-5D Bohrtiefe, geeignet für Edelstahl, Stahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Legierungen usw.

Vorteile: - Helixwinkel, durch scharfe Hauptschneide wird Spanstau vermieden, geeignet zum Hochleistungsbohren, verstärkte Kerndicke, kurze Ausföhrung, Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Stabilität, Oberflächengüte und Produktivität.



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

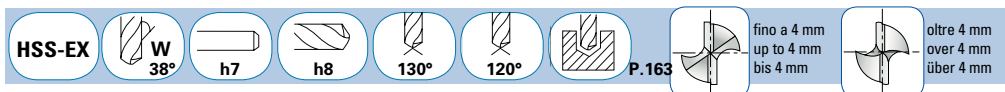
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCHS-02,00	2.0	56	24
PRPCHS-02,10	2.1	56	24
PRPCHS-02,20	2.2	59	27
PRPCHS-02,30	2.3	59	27
PRPCHS-02,40	2.4	62	30
PRPCHS-02,50	2.5	62	30
PRPCHS-02,60	2.6	62	30
PRPCHS-02,70	2.7	65	33
PRPCHS-02,80	2.8	65	33
PRPCHS-02,90	2.9	65	33
PRPCHS-03,00	3.0	65	33
PRPCHS-03,10	3.1	68	36
PRPCHS-03,20	3.2	68	36
PRPCHS-03,30	3.3	68	36
PRPCHS-03,40	3.4	71	39
PRPCHS-03,50	3.5	71	39
PRPCHS-03,60	3.6	71	39
PRPCHS-03,70	3.7	71	39
PRPCHS-03,80	3.8	75	43
PRPCHS-03,90	3.9	75	43
PRPCHS-04,00	4.0	75	43
PRPCHS-04,10	4.1	87	43
PRPCHS-04,20	4.2	87	43
PRPCHS-04,30	4.3	91	47

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCHS-04,40	4.4	91	47
PRPCHS-04,50	4.5	91	47
PRPCHS-04,60	4.6	91	47
PRPCHS-04,70	4.7	91	47
PRPCHS-04,80	4.8	96	52
PRPCHS-04,90	4.9	96	52
PRPCHS-05,00	5.0	96	52
PRPCHS-05,10	5.1	96	52
PRPCHS-05,20	5.2	96	52
PRPCHS-05,30	5.3	96	52
PRPCHS-05,40	5.4	101	57
PRPCHS-05,50	5.5	101	57
PRPCHS-05,60	5.6	101	57
PRPCHS-05,70	5.7	101	57
PRPCHS-05,80	5.8	101	57
PRPCHS-05,90	5.9	101	57
PRPCHS-06,00	6.0	101	57
PRPCHS-06,10	6.1	107	63
PRPCHS-06,20	6.2	107	63
PRPCHS-06,30	6.3	107	63
PRPCHS-06,40	6.4	107	63
PRPCHS-06,50	6.5	107	63
PRPCHS-06,60	6.6	107	63
PRPCHS-06,70	6.7	107	63

Punte elicoidali cilindriche SHP-Inox Corte

SHP-Inox twist drills Jobber

SHP-Inox Spiralbohrer mit Zylinderschaft Kurz



Applicazioni:- Studiata per forare senza step per 4D-5D. Per forare acciaio Inox, alluminio, alluminio legato, alluminio pressofuso, rame, lega di rame, ecc..

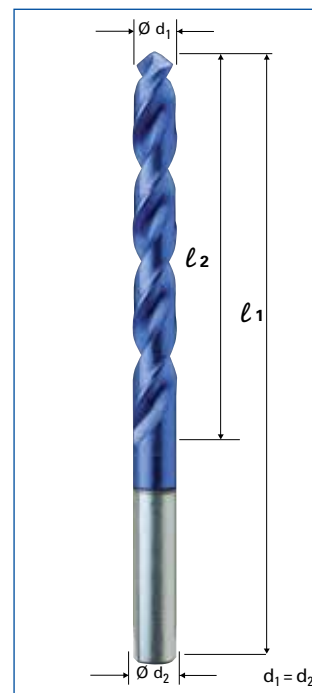
- Vantaggi:
- L'elica molto ritorta e l'affilata spoglia di taglio permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
 - L'acciaio vanadio HSS-Co con il rivestimento Futura permette alte velocità e alti avanzamenti, garantendo una lunga durata.
 - L'alta produttività e l'ottima finitura del foro evitano seconde operazioni.

Application:- Designed for 4D-5D drilling in stainless steels, mild steels, aluminium, aluminium alloy, aluminium die cast, cooper, cooper alloy, etc.

- Advantage:
- High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling.
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 - High vanadium HSS-EX material with superior Futura coating - higher speed and feed, longer service life.
 - High quality-good surface finishes, high productivity and weeding second operation.

Anwendung:- Für 4D-5D Bohrtiefe, geeignet für Edelstahl, Stahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Legierungen usw.

- Vorteile:
- Helixwinkel, durch scharfe Hauptschneide wird Spanstau vermieden, geeignet zum Hochleistungsbohren, verstärkte Kerndicke, kurze Ausführung, Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Stabilität, Oberflächengüte und Produktivität.



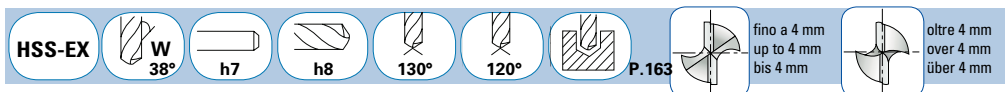
per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCHS-06,80	6.8	113	69	PRPCHS-09,30	9.3	131	81
PRPCHS-06,90	6.9	113	69	PRPCHS-09,40	9.4	131	81
PRPCHS-07,00	7.0	113	69	PRPCHS-09,50	9.5	131	81
PRPCHS-07,10	7.1	113	69	PRPCHS-09,60	9.6	137	87
PRPCHS-07,20	7.2	113	69	PRPCHS-09,70	9.7	137	87
PRPCHS-07,30	7.3	113	69	PRPCHS-09,80	9.8	137	87
PRPCHS-07,40	7.4	113	69	PRPCHS-09,90	9.9	137	87
PRPCHS-07,50	7.5	113	69	PRPCHS-10,00	10.0	137	87
PRPCHS-07,60	7.6	119	75	PRPCHS-10,10	10.1	144	87
PRPCHS-07,70	7.7	119	75	PRPCHS-10,20	10.2	144	87
PRPCHS-07,80	7.8	119	75	PRPCHS-10,30	10.3	144	87
PRPCHS-07,90	7.9	119	75	PRPCHS-10,40	10.4	144	87
PRPCHS-08,00	8.0	119	75	PRPCHS-10,50	10.5	144	87
PRPCHS-08,10	8.1	125	75	PRPCHS-10,60	10.6	144	87
PRPCHS-08,20	8.2	125	75	PRPCHS-10,70	10.7	151	94
PRPCHS-08,30	8.3	125	75	PRPCHS-10,80	10.8	151	94
PRPCHS-08,40	8.4	125	75	PRPCHS-10,90	10.9	151	94
PRPCHS-08,50	8.5	125	75	PRPCHS-11,00	11.0	151	94
PRPCHS-08,60	8.6	131	81	PRPCHS-11,10	11.1	151	94
PRPCHS-08,70	8.7	131	81	PRPCHS-11,20	11.2	151	94
PRPCHS-08,80	8.8	131	81	PRPCHS-11,30	11.3	151	94
PRPCHS-08,90	8.9	131	81	PRPCHS-11,40	11.4	151	94
PRPCHS-09,00	9.0	131	81	PRPCHS-11,50	11.5	151	94
PRPCHS-09,10	9.1	131	81	PRPCHS-11,60	11.6	151	94
PRPCHS-09,20	9.2	131	81	PRPCHS-11,70	11.7	151	94

Punte elicoidali cilindriche SHP-Inox Corte

SHP-Inox twist drills Jobber

SHP-Inox Spiralbohrer mit Zylinderschaft Kurz



Applicazioni: - Studiata per forare senza step per 4D-5D. Per forare acciaio Inox, alluminio, alluminio legato, alluminio pressofuso, rame, lega di rame, ecc..

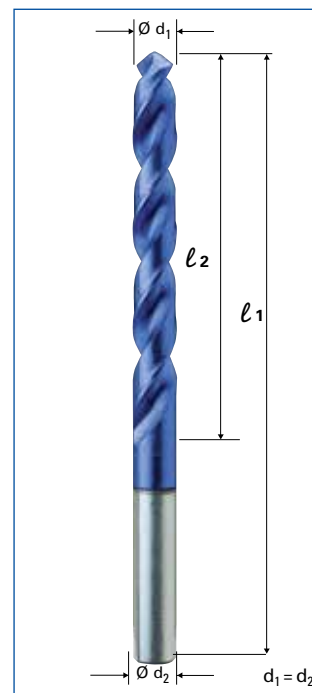
Vantaggi: - L'elica molto ritorta e l'affilata spoglia di taglio permettono di incrementare la produzione e di avere alte prestazioni.
 - Il tagliente piatto e il corto tagliente permettono di incrementare la rimozione di truciolo, di ridurre le vibrazioni e le flessioni.
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Anwendung: - Für 4D-5D Bohrtiefe, geeignet für Edelstahl, Stahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Legierungen usw.

Vorteile: - Helixwinkel, durch scharfe Hauptschneide wird Spanstau vermieden, geeignet zum Hochleistungsbohren, verstärkte Kerndicke, kurze Ausführung, Hoch Vanadium HSS-EX-Material mit Futura-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, Verbesserte Stabilität, Oberflächengüte und Produktivität.



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

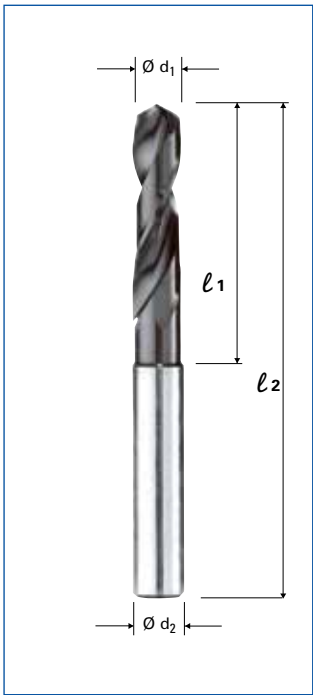
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCHS-11,80	11.8	151	94
PRPCHS-11,90	11.9	158	101
PRPCHS-12,00	12.0	158	101
PRPCHS-12,10	12.1	158	101
PRPCHS-12,20	12.2	158	101
PRPCHS-12,30	12.3	158	101
PRPCHS-12,40	12.4	158	101
PRPCHS-12,50	12.5	158	101
PRPCHS-12,60	12.6	158	101
PRPCHS-12,70	12.7	158	101
PRPCHS-12,80	12.8	158	101
PRPCHS-12,90	12.9	158	101
PRPCHS-13,00	13.0	158	101
PRPCHS-13,50	13.5	166	106
PRPCHS-14,00	14.0	166	106
PRPCHS-14,10	14.1	169	109

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm
PRPCHS-14,50	14.5	169	109
PRPCHS-15,00	15.0	169	109
PRPCHS-15,50	15.5	172	112
PRPCHS-15,60	15.6	172	112
PRPCHS-16,00	16.0	172	112
PRPCHS-16,50	16.5	181	115
PRPCHS-17,00	17.0	181	115
PRPCHS-17,50	17.5	184	118
PRPCHS-17,60	17.6	184	118
PRPCHS-18,00	18.0	184	118
PRPCHS-18,50	18.5	188	122
PRPCHS-19,00	19.0	188	122
PRPCHS-19,50	19.5	191	125
PRPCHS-19,60	19.6	191	125
PRPCHS-20,00	20.0	191	125

Punte PM-DRILL 3xD rivestite TIALN, **Extra Corte** HSS-PM twist drills 3xD TIALN coating, **Stub** HSS-PM Spiralbohrer 3xD TIALN Beschichtung, **Extra Kurz**



Applicazioni: - Utilizzabili su diversi materiali compresi alluminio e acciai inossidabili così come acciai al carbonio, acciai per stampi e acciai temprati (30~45HRC).
Application: - Usable in various materials including Aluminium, stainless Steel as well Carbonsteel, Steel for Moulds and hardened Steel (30~45HRC).
Verwendung: - Verwendbar in verschiedenen Materialien Aluminium, Rostfreier Stahl, Carbon Stahl, Stahl für Formenbau und gehärteter Stahl (30~45HRC).



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

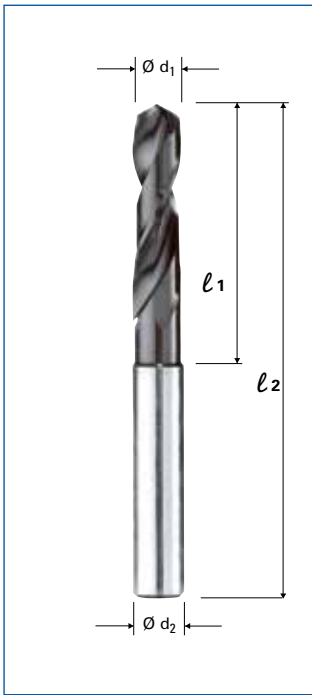
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP3PM-01,00	1,0	6	38	3
PRP3PM-01,10	1,1	7	39	3
PRP3PM-01,20	1,2	8	40	3
PRP3PM-01,30	1,3	8	40	3
PRP3PM-01,40	1,4	9	41	3
PRP3PM-01,50	1,5	9	41	3
PRP3PM-01,60	1,6	10	42	3
PRP3PM-01,70	1,7	10	42	3
PRP3PM-01,80	1,8	11	43	3
PRP3PM-01,90	1,9	11	43	3
PRP3PM-02,00	2,0	12	44	3
PRP3PM-02,10	2,1	12	44	3
PRP3PM-02,20	2,2	13	45	3
PRP3PM-02,30	2,3	13	45	3
PRP3PM-02,40	2,4	14	46	3
PRP3PM-02,50	2,5	14	46	3
PRP3PM-02,60	2,6	14	46	3
PRP3PM-02,70	2,7	16	48	3
PRP3PM-02,80	2,8	16	48	3
PRP3PM-02,90	2,9	16	48	3
PRP3PM-03,00	3,0	16	48	3
PRP3PM-03,10	3,1	18	50	4
PRP3PM-03,20	3,2	18	50	4
PRP3PM-03,30	3,3	18	50	4
PRP3PM-03,40	3,4	20	52	4
PRP3PM-03,50	3,5	20	52	4
PRP3PM-03,60	3,6	20	52	4
PRP3PM-03,70	3,7	20	52	4
PRP3PM-03,80	3,8	22	54	4
PRP3PM-03,90	3,9	22	54	4

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP3PM-04,00	4,0	22	54	4
PRP3PM-04,10	4,1	22	66	6
PRP3PM-04,20	4,2	22	66	6
PRP3PM-04,30	4,3	24	68	6
PRP3PM-04,40	4,4	24	68	6
PRP3PM-04,50	4,5	24	68	6
PRP3PM-04,60	4,6	24	68	6
PRP3PM-04,70	4,7	24	68	6
PRP3PM-04,80	4,8	26	70	6
PRP3PM-04,90	4,9	26	70	6
PRP3PM-05,00	5,0	26	70	6
PRP3PM-05,10	5,1	26	70	6
PRP3PM-05,20	5,2	26	70	6
PRP3PM-05,30	5,3	26	70	6
PRP3PM-05,40	5,4	28	72	6
PRP3PM-05,50	5,5	28	72	6
PRP3PM-05,60	5,6	28	72	6
PRP3PM-05,70	5,7	28	72	6
PRP3PM-05,80	5,8	28	72	6
PRP3PM-05,90	5,9	28	72	6
PRP3PM-06,00	6,0	28	72	6
PRP3PM-06,10	6,1	31	75	8
PRP3PM-06,20	6,2	31	75	8
PRP3PM-06,30	6,3	31	75	8
PRP3PM-06,40	6,4	31	75	8
PRP3PM-06,50	6,5	31	75	8
PRP3PM-06,60	6,6	31	75	8
PRP3PM-06,70	6,7	31	75	8
PRP3PM-06,80	6,8	34	78	8
PRP3PM-06,90	6,9	34	78	8

Punte PM-DRILL 3xD rivestite TIALN, **Extra Corte** HSS-PM twist drills 3xD TIALN coating, **Stub** HSS-PM Spiralbohrer 3xD TIALN Beschichtung, **Extra Kurz**



Applicazioni: - Utilizzabili su diversi materiali compresi alluminio e acciai inossidabili così come acciai al carbonio, acciai per stampi e acciai temprati (30~45HRC).
Application: - Usable in various materials including Aluminium, stainless Steel as well Carbonsteel, Steel for Moulds and hardened Steel (30~45HRC).
Verwendung: - Verwendbar in verschiedenen Materialien Aluminium, Rostfreier Stahl, Carbon Stahl, Stahl für Formenbau und gehärteter Stahl (30~45HRC).

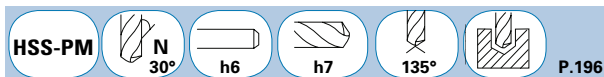


per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

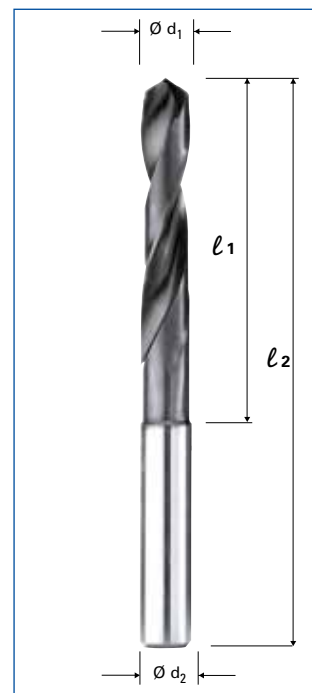
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
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PRP3PM-07,20	7,2	34	78	8
PRP3PM-07,30	7,3	34	78	8
PRP3PM-07,40	7,4	34	78	8
PRP3PM-07,50	7,5	34	78	8
PRP3PM-07,60	7,6	37	81	8
PRP3PM-07,70	7,7	37	81	8
PRP3PM-07,80	7,8	37	81	8
PRP3PM-07,90	7,9	37	81	8
PRP3PM-08,00	8,0	37	81	8
PRP3PM-08,10	8,1	37	87	10
PRP3PM-08,20	8,2	37	87	10
PRP3PM-08,30	8,3	37	87	10
PRP3PM-08,40	8,4	37	87	10
PRP3PM-08,50	8,5	37	87	10
PRP3PM-08,60	8,6	40	90	10
PRP3PM-08,70	8,7	40	90	10
PRP3PM-08,80	8,8	40	90	10
PRP3PM-08,90	8,9	40	90	10
PRP3PM-09,00	9,0	40	90	10
PRP3PM-09,10	9,1	40	90	10
PRP3PM-09,20	9,2	40	90	10
PRP3PM-09,30	9,3	40	90	10
PRP3PM-09,40	9,4	40	90	10
PRP3PM-09,50	9,5	40	90	10
PRP3PM-09,60	9,6	43	93	10
PRP3PM-09,70	9,7	43	93	10
PRP3PM-09,80	9,8	43	93	10
PRP3PM-09,90	9,9	43	93	10
PRP3PM-10,00	10,0	43	93	10

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP3PM-10,10	10,1	43	100	12
PRP3PM-10,20	10,2	43	100	12
PRP3PM-10,30	10,3	43	100	12
PRP3PM-10,40	10,4	43	100	12
PRP3PM-10,50	10,5	43	100	12
PRP3PM-10,60	10,6	43	100	12
PRP3PM-10,70	10,7	47	104	12
PRP3PM-10,80	10,8	47	104	12
PRP3PM-10,90	10,9	47	104	12
PRP3PM-11,00	11,0	47	104	12
PRP3PM-11,10	11,1	47	104	12
PRP3PM-11,20	11,2	47	104	12
PRP3PM-11,30	11,3	47	104	12
PRP3PM-11,40	11,4	47	104	12
PRP3PM-11,50	11,5	47	104	12
PRP3PM-11,60	11,6	47	104	12
PRP3PM-11,70	11,7	47	104	12
PRP3PM-11,80	11,8	47	104	12
PRP3PM-11,90	11,9	51	108	12
PRP3PM-12,00	12,0	51	108	12
PRP3PM-12,10	12,1	51	108	12
PRP3PM-12,20	12,2	51	108	12
PRP3PM-12,30	12,3	51	108	12
PRP3PM-12,40	12,4	51	108	12
PRP3PM-12,50	12,5	51	108	12
PRP3PM-12,60	12,6	51	108	12
PRP3PM-12,70	12,7	51	108	12
PRP3PM-12,80	12,8	51	108	12
PRP3PM-12,90	12,9	51	108	12
PRP3PM-13,00	13,0	51	108	12

Punte PM-DRILL 5xD rivestite TIALN, **Corte** HSS-PM twist drills 5xD TIALN coating, **Jobber** HSS-PM Spiralbohrer 5xD TIALN Beschichtung, **Kurz**



Applicazioni: - Utilizzabili su diversi materiali compresi alluminio e acciai inossidabili così come acciai al carbonio, acciai per stampi e acciai temprati (30~45HRC).
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Verwendung: - Verwendbar in verschiedenen Materialien Aluminium, Rostfreier Stahl, Carbon Stahl, Stahl für Formenbau und gehärteter Stahl (30~45HRC).



per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

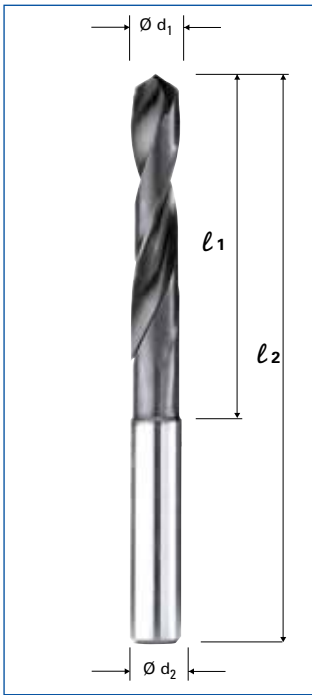
Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP5PM-02,00	2,0	24	56	3
PRP5PM-02,10	2,1	24	56	3
PRP5PM-02,20	2,2	25	56	3
PRP5PM-02,30	2,3	25	56	3
PRP5PM-02,40	2,4	30	61	3
PRP5PM-02,50	2,5	30	61	3
PRP5PM-02,60	2,6	30	61	3
PRP5PM-02,70	2,7	33	64	3
PRP5PM-02,80	2,8	33	64	3
PRP5PM-02,90	2,9	33	64	3
PRP5PM-03,00	3,0	33	64	3
PRP5PM-03,10	3,1	36	68	4
PRP5PM-03,20	3,2	36	68	4
PRP5PM-03,30	3,3	36	68	4
PRP5PM-03,40	3,4	39	71	4
PRP5PM-03,50	3,5	39	71	4
PRP5PM-03,60	3,6	39	71	4
PRP5PM-03,70	3,7	39	71	4
PRP5PM-03,80	3,8	43	75	4
PRP5PM-03,90	3,9	43	75	4
PRP5PM-04,00	4,0	43	75	4
PRP5PM-04,10	4,1	43	85	6
PRP5PM-04,20	4,2	43	85	6
PRP5PM-04,30	4,3	47	89	6
PRP5PM-04,40	4,4	47	89	6
PRP5PM-04,50	4,5	47	89	6
PRP5PM-04,60	4,6	47	89	6
PRP5PM-04,70	4,7	47	89	6
PRP5PM-04,80	4,8	52	94	6
PRP5PM-04,90	4,9	52	94	6

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP5PM-05,00	5,0	52	94	6
PRP5PM-05,10	5,1	52	94	6
PRP5PM-05,20	5,2	52	94	6
PRP5PM-05,30	5,3	52	94	6
PRP5PM-05,40	5,4	57	99	6
PRP5PM-05,50	5,5	57	99	6
PRP5PM-05,60	5,6	57	99	6
PRP5PM-05,70	5,7	57	99	6
PRP5PM-05,80	5,8	57	99	6
PRP5PM-05,90	5,9	57	99	6
PRP5PM-06,00	6,0	57	99	6
PRP5PM-06,10	6,1	63	107	8
PRP5PM-06,20	6,2	63	107	8
PRP5PM-06,30	6,3	63	107	8
PRP5PM-06,40	6,4	63	107	8
PRP5PM-06,50	6,5	63	107	8
PRP5PM-06,60	6,6	63	107	8
PRP5PM-06,70	6,7	63	107	8
PRP5PM-06,80	6,8	69	113	8
PRP5PM-06,90	6,9	69	113	8
PRP5PM-07,00	7,0	69	113	8
PRP5PM-07,10	7,1	69	113	8
PRP5PM-07,20	7,2	69	113	8
PRP5PM-07,30	7,3	69	113	8
PRP5PM-07,40	7,4	69	113	8
PRP5PM-07,50	7,5	69	113	8
PRP5PM-07,60	7,6	75	119	8
PRP5PM-07,70	7,7	75	119	8
PRP5PM-07,80	7,8	75	119	8
PRP5PM-07,90	7,9	75	119	8

Punte PM-DRILL 5xD rivestite TIALN, **Corte** HSS-PM twist drills 5xD TIALN coating, **Jobber** HSS-PM Spiralbohrer 5xD TIALN Beschichtung, **Kurz**



Applicazioni: - Utilizzabili su diversi materiali compresi alluminio e acciai inossidabili così come acciai al carbonio, acciai per stampi e acciai temprati (30~45HRC).
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per ACCIAI INOX
for STAINLESS STEELS
für EDELSTÄHLE

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP5PM-08,00	8,0	75	119	8
PRP5PM-08,10	8,1	75	125	10
PRP5PM-08,20	8,2	75	125	10
PRP5PM-08,30	8,3	75	125	10
PRP5PM-08,40	8,4	75	125	10
PRP5PM-08,50	8,5	75	125	10
PRP5PM-08,60	8,6	81	131	10
PRP5PM-08,70	8,7	81	131	10
PRP5PM-08,80	8,8	81	131	10
PRP5PM-08,90	8,9	81	131	10
PRP5PM-09,00	9,0	81	131	10
PRP5PM-09,10	9,1	81	131	10
PRP5PM-09,20	9,2	81	131	10
PRP5PM-09,30	9,3	81	131	10
PRP5PM-09,40	9,4	81	131	10
PRP5PM-09,50	9,5	81	131	10
PRP5PM-09,60	9,6	87	137	10
PRP5PM-09,70	9,7	87	137	10
PRP5PM-09,80	9,8	87	137	10
PRP5PM-09,90	9,9	87	137	10
PRP5PM-10,00	10,0	87	137	10
PRP5PM-10,10	10,1	87	144	12
PRP5PM-10,20	10,2	87	144	12
PRP5PM-10,30	10,3	87	144	12
PRP5PM-10,40	10,4	87	144	12
PRP5PM-10,50	10,5	87	144	12

Codice N. Nr. Code	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d ₂ mm
PRP5PM-10,60	10,6	87	144	12
PRP5PM-10,70	10,7	94	151	12
PRP5PM-10,80	10,8	94	151	12
PRP5PM-10,90	10,9	94	151	12
PRP5PM-11,00	11,0	94	151	12
PRP5PM-11,10	11,1	94	151	12
PRP5PM-11,20	11,2	94	151	12
PRP5PM-11,30	11,3	94	151	12
PRP5PM-11,40	11,4	94	151	12
PRP5PM-11,50	11,5	94	151	12
PRP5PM-11,60	11,6	94	151	12
PRP5PM-11,70	11,7	94	151	12
PRP5PM-11,80	11,8	94	151	12
PRP5PM-11,90	11,9	101	158	12
PRP5PM-12,00	12,0	101	158	12
PRP5PM-12,10	12,1	101	158	12
PRP5PM-12,20	12,2	101	158	12
PRP5PM-12,30	12,3	101	158	12
PRP5PM-12,40	12,4	101	158	12
PRP5PM-12,50	12,5	101	158	12
PRP5PM-12,60	12,6	101	158	12
PRP5PM-12,70	12,7	101	158	12
PRP5PM-12,80	12,8	101	158	12
PRP5PM-12,90	12,9	101	158	12
PRP5PM-13,00	13,0	101	158	12



MASCHI A MANO E A MACCHINA IN HSS, HSS-E E ASP



HSS, HSS-E AND ASP TAPS



HSS, HSS-E UND ASP GEWINDEBOHRER

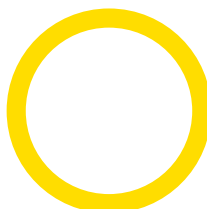




I 7 anelli colorati vi aiutano a trovare più facilmente il maschio ottimale

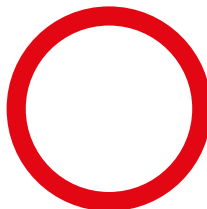
The 7 coloured rings help you to choose easily the best tap

**Per impiego universale
e per acciai
con $R < 1000 \text{ N/mm}^2$**



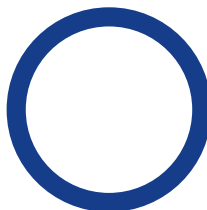
***For all applications
and for steel
with $R < 1000 \text{ N/mm}^2$***

**Per acciai legati,
acciai bonificati, acciai da
utensili con $R > 1000 \text{ N/mm}^2$**



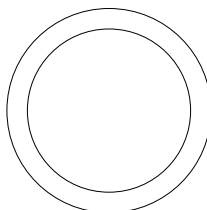
***For alloy steels,
tempered steels, tool steel
with $R > 1000 \text{ N/mm}^2$***

**Per acciai
legati,
acciai inox**



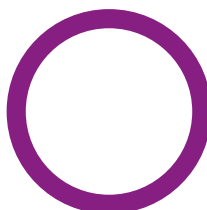
***For alloy steels,
stainless
steels***

**Per ghisa grigia,
sferoidale,
meehanite**



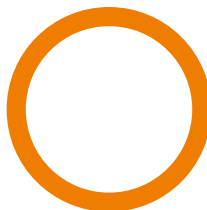
***For grey cast iron,
malleable,
meehanite***

**Per impieghi universali:
acciaio inox, acciai legati,
acciai con $R \geq 1200 \text{ N/mm}^2$
Rame e leghe di alluminio
a truciolo lungo**



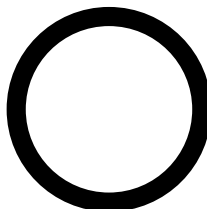
***For all applications:
stainless steels, alloy steels, tool
steel with $R \geq 1200 \text{ N/mm}^2$
copper, aluminum alloy
with long chip***

**Per acciai
temprati $\geq \text{HRC } 50$
per leghe di titanio e nichel**



***For tempered steels
 $\geq \text{HRC } 50$
for titanium and nickel alloys***

**Per alluminio
e leghe
in acciaio**



***For aluminium
and
aluminium alloys***

SERIE DI MASCHI PRM100C

SETS OF TAPS PRM100C

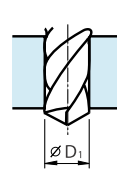
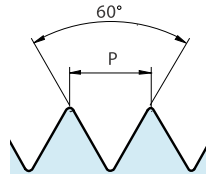
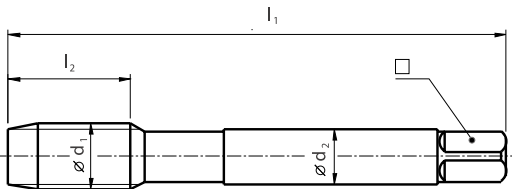
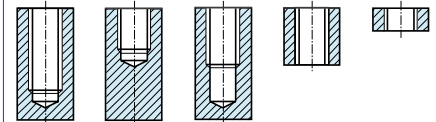
GEWINDEBOHRER - SATZ PRM100C


Tipo Type
N

HSS

DIN 352

6H


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM100CS02	2	x	0.4	36	8	2.8	2.1	1.6
PRM100CS02,5	2.5	x	0.45	40	9	2.8	2.1	2.05
PRM100CS03	3	x	0.5	40	11	3.5	2.7	2.5
PRM100CS03,5	3.5	x	0.6	45	13	4	3	2.9
PRM100CS04	4	x	0.7	45	13	4.5	3.4	3.3
PRM100CS04,5	4.5	x	0.75	50	16	6	4.9	3.7
PRM100CS05	5	x	0.8	52	16	6	4.9	4.2
PRM100CS06	6	x	1	56	18	6	4.9	5
PRM100CS07	7	x	1	56	18	6	4.9	6
PRM100CS08	8	x	1.25	63	20	6	4.9	6.8
PRM100CS09	9	x	1.25	63	20	7	5.5	7.8
PRM100CS10	10	x	1.5	70	22	7	5.5	8.5
PRM100CS11	11	x	1.5	70	22	8	6.2	9.5
PRM100CS12	12	x	1.75	80	24	9	7	10.2
PRM100CS14	14	x	2	80	26	11	9	12
PRM100CS16	16	x	2	80	27	12	9	14
PRM100CS18	18	x	2.5	95	30	14	11	15.5
PRM100CS20	20	x	2.5	95	32	16	12	17.5
PRM100CS22	22	x	2.5	100	32	18	14.5	19.5
PRM100CS24	24	x	3	110	34	18	14.5	21
PRM100CS27	27	x	3	110	36	20	16	24
PRM100CS30	30	x	3.5	125	40	22	18	26.5
PRM100CS33	33	x	3.5	125	40	25	20	29.5
PRM100CS36	36	x	4	150	50	28	22	32
PRM100CS39	39	x	4	150	50	32	24	35
PRM100CS42	42	x	4.5	150	56	32	24	37.5
PRM100CS45	45	x	4.5	160	58	36	29	40.5
PRM100CS48	48	x	5	180	65	36	29	43
PRM100CS52	52	x	5	180	65	40	32	47

MASCHI A MACCHINA FORI PASSANTI VAPORIZZATI PRM220HP-AB
MACHINE TAPS PRM220HP-AB
MASCHINENGEWINDEBOHRER PRM220HP-AB


 Tipo
Type

N

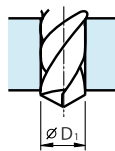
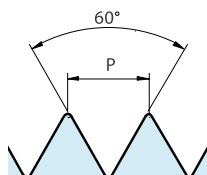
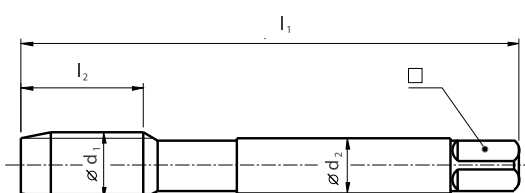
HSS-E

DIN 371

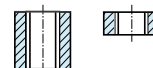
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM220HP-AB03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM220HP-AB04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM220HP-AB05	M 5	x	0.8	70	14	6		4.2
PRM220HP-AB06	M 6	x	1	80	16	6	4.9	5
PRM220HP-AB08	M 8	x	1.25	90	18	8	6.2	6.8
PRM220HP-AB10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI PASSANTI VAPORIZZATI PRM220HP-BB
MACHINE TAPS PRM220HP-BB
MASCHINENGEWINDEBOHRER PRM220HP-BB


 Tipo
Type

N

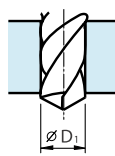
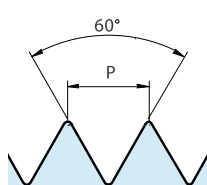
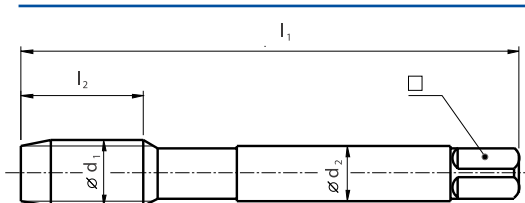
HSS-E

DIN 376

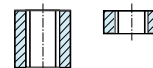
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM220HP-BB12	M 12	x	1.75	110	24	9	7	10.2
PRM220HP-BB16	M 16	x	2	110	27	12	9	14

MASCHI A MACCHINA FORI PASSANTI RIVESTITI TiN PRM550HP-AB
MACHINE TAPS PRM550HP-AB
MASCHINENGEWINDEBOHRER PRM550HP-AB



DIN 371

 Tipo
Type

N

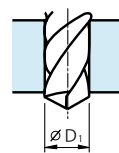
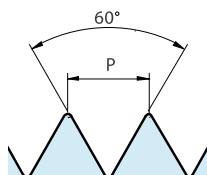
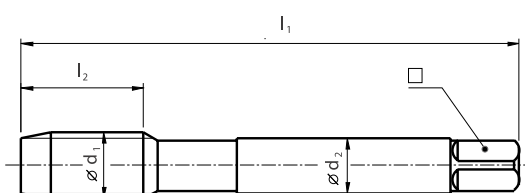
HSS-E

DIN 371

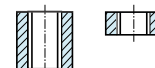
6H



TiN



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM550HP-AB03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM550HP-AB04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM550HP-AB05	M 5	x	0.8	70	14	6	4.9	4.2
PRM550HP-AB06	M 6	x	1	80	16	6	4.9	5
PRM550HP-AB08	M 8	x	1.25	90	18	8	6.2	6.8
PRM550HP-AB10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI PASSANTI RIVESTITI TiN PRM550HP-BB
MACHINE TAPS PRM550HP-BB
MASCHINENGEWINDEBOHRER PRM550HP-BB



DIN 376

 Tipo
Type

N

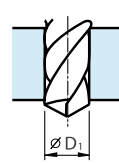
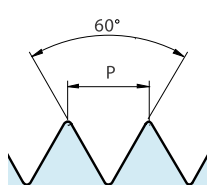
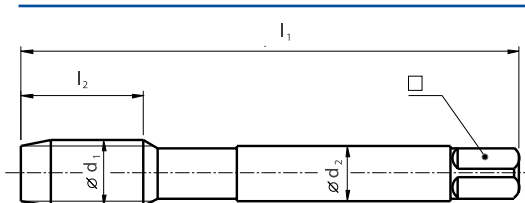
HSS-E

DIN 376

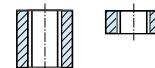
6H



TiN



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM550HP-BB12	M12	x	1.75	110	24	9	7	10.2
PRM550HP-BB16	M16	x	2	110	27	12	9	14

MASCHI A MACCHINA PRM250BC

MACHINE TAPS PRM250BC

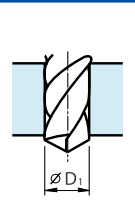
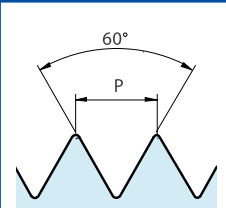
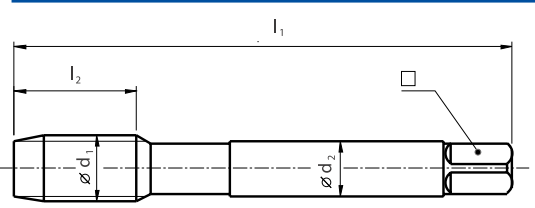
MASCHINENGEWINDEBOHRER PRM250BC



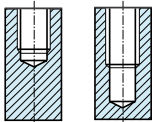
Tipo
Type

N

HSS
DIN 376
6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM250BC12	12	x	1.75	110	18	9	7	10.2
PRM250BC14	14	x	2	110	20	11	9	12
PRM250BC16	16	x	2	110	20	12	9	14
PRM250BC18	18	x	2.5	125	25	14	11	15.5
PRM250BC20	20	x	2.5	140	25	16	12	17.5
PRM250BC22	22	x	2.5	140	25	18	14.5	19.5
PRM250BC24	24	x	3	160	30	18	14.5	21
PRM250BC27	27	x	3	160	30	20	16	24
PRM250BC30	30	x	3.5	180	35	22	18	26.5

MASCHI A MACCHINA FORI CIECHI VAPORIZZATI PRM610HP-AC
MACHINE TAPS PRM610HP-AC
MASCHINENGEWINDEBOHRER PRM610HP-AC


 Tipo
Type

N

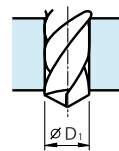
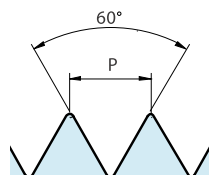
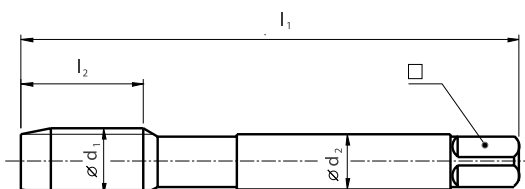
HSS-E

DIN 371

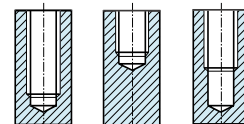
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM610HP-AC03	M 3	x	0.5	56	7	3.5	2.7	2.5
PRM610HP-AC04	M 4	x	0.7	63	8	4.5	3.4	3.3
PRM610HP-AC05	M 5	x	0.8	70	9	6	4.9	4.2
PRM610HP-AC06	M 6	x	1	80	10	6	4.9	5
PRM610HP-AC08	M 8	x	1.25	90	13	8	6.2	6.8
PRM610HP-AC10	M10	x	1.5	100	15	10	8	8.5

MASCHI A MACCHINA FORI CIECHI VAPORIZZATI PRM610HP-BC
MACHINE TAPS PRM610HP-BC
MASCHINENGEWINDEBOHRER PRM610HP-BC


 Tipo
Type

N

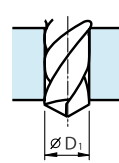
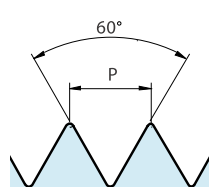
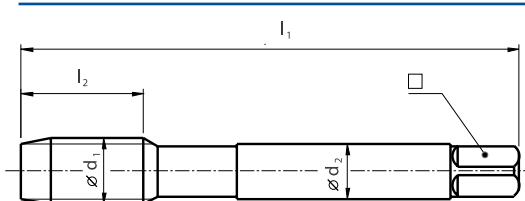
HSS-E

DIN 376

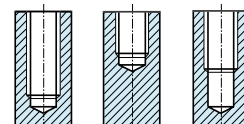
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM610HP-BC12	M12	x	1.75	110	18	9	7	10.2
PRM610HP-BC16	M16	x	2	110	20	12	9	14

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiN PRM040HP-AC
MACHINE TAPS PRM040HP-AC
MASCHINENGEWINDEBOHRER PRM040HP-AC



DIN 371

 Tipo
Type

N

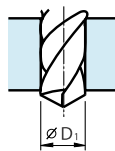
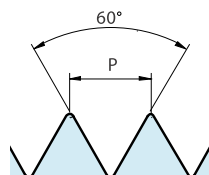
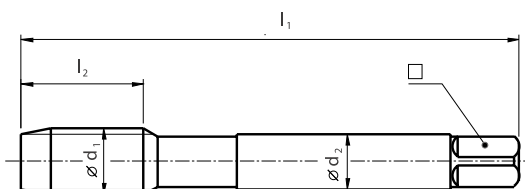
HSS-E

DIN 371

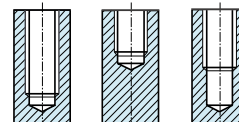
6H



TiN



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM040HP-AC03	M 3	0,5	56	7	3,5	2,7	2,5	2.5
PRM040HP-AC04	M 4	0,7	63	8	4,5	3,4	3,3	3.3
PRM040HP-AC05	M 5	0,8	70	9	6	4,9	4,2	4.2
PRM040HP-AC06	M 6	1	80	10	6	4,9	5	5
PRM040HP-AC08	M 8	1,25	90	13	8	6,2	6,8	6.8
PRM040HP-AC10	M10	1,5	100	15	10	8	8,5	8.5

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiN PRM040HP-BC
MACHINE TAPS PRM040HP-BC
MASCHINENGEWINDEBOHRER PRM040HP-BC



DIN 376

 Tipo
Type

N

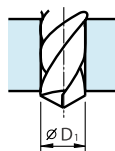
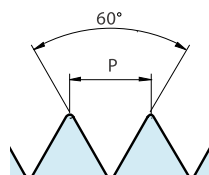
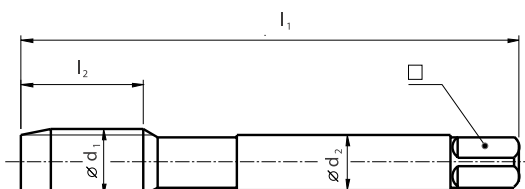
HSS-E

DIN 376

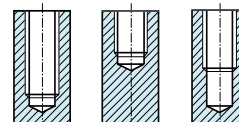
6H



TiN



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM040HP-BC12	M12	1,75	110	18	9	7	10,2	10.2
PRM040HP-BC16	M16	2	110	20	12	9	14	14

MASCHI A MACCHINA FORI CIECHI **PRM470HP-AC** MACHINE TAPS **PRM470HP-AC** MASCHINENGEWINDEBOHRER **PRM470HP-AC**


 Tipo
Type

HR

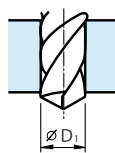
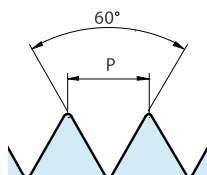
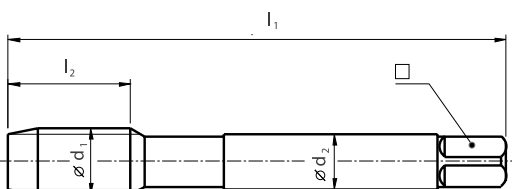
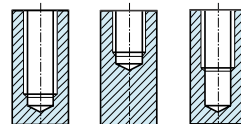
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM470HP-AC03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM470HP-AC04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM470HP-AC05	M 5	x	0.8	70	14	6	4.9	4.2
PRM470HP-AC06	M 6	x	1	80	16	6	4.9	5
PRM470HP-AC08	M 8	x	1.25	90	18	8	6.2	6.8
PRM470HP-AC10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI CIECHI **PRM470HP-BC** MACHINE TAPS **PRM470HP-BC** MASCHINENGEWINDEBOHRER **PRM470HP-BC**


 Tipo
Type

HR

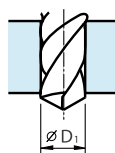
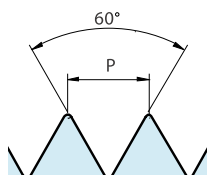
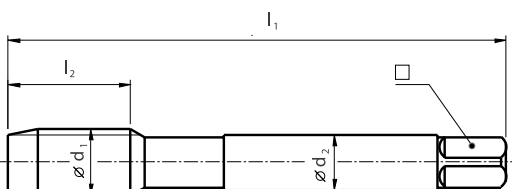
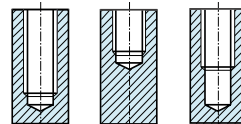
HSS-E

DIN 376

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM470HP-BC12	M12	x	1.75	110	24	7	7	10.2
PRM470HP-BC14	M14	x	2	110	25	11	9	12
PRM470HP-BC16	M16	x	2	110	27	12	9	14
PRM470HP-BC18	M18	x	2.5	125	32	14	11	15.5
PRM470HP-BC20	M20	x	2.5	140	32	16	12	17.5
PRM470HP-BC24	M24	x	3	160	36	18	14.5	21
PRM470HP-BC27	M27	x	3	160	36	20	16	24
PRM470HP-BC30	M30	x	3.5	180	40	22	18	26.5

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiCN PRM480HP-AC
MACHINE TAPS PRM480HP-AC
MASCHINENGEWINDEBOHRER PRM480HP-AC



DIN 371

 Tipo
Type

HR

HSS-E

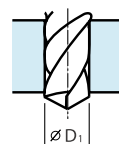
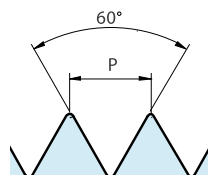
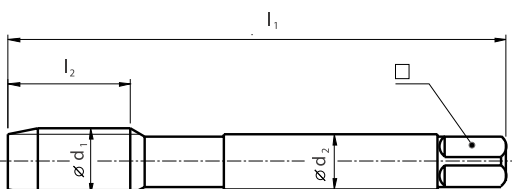
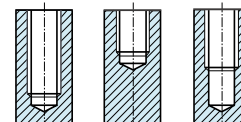
DIN 371

6H



TiCN

Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM480HP-AC03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM480HP-AC04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM480HP-AC05	M 5	x	0.8	70	14	6	4.9	4.2
PRM480HP-AC06	M 6	x	1	80	16	6	4.9	5
PRM480HP-AC08	M 8	x	1.25	90	18	8	6.2	6.8
PRM480HP-AC10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiCN PRM480HP-BC
MACHINE TAPS PRM480HP-BC
MASCHINENGEWINDEBOHRER PRM480HP-BC



DIN 376

 Tipo
Type

HR

HSS-E

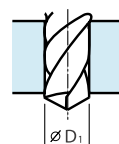
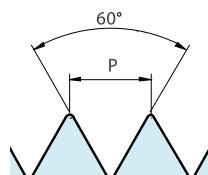
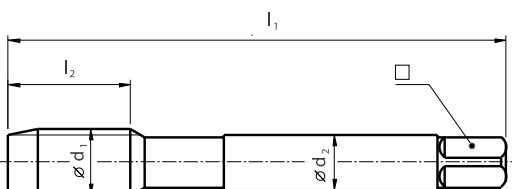
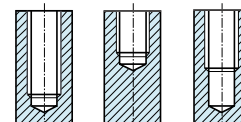
DIN 376

6H



TiCN

Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM480HP-BC12	M12	x	1.75	110	24	7	7	10.2
PRM480HP-BC16	M16	x	2	110	27	12	9	14
PRM480HP-BC20	M20	x	2.5	140	32	16	12	17.5

MASCHI A MACCHINA FORI PASSANTI VAPORIZZATI PRM060HP-AB
MACHINE TAPS PRM060HP-AB
MASCHINENGEWINDEBOHRER PRM060HP-AB


 Tipo
Type

VA

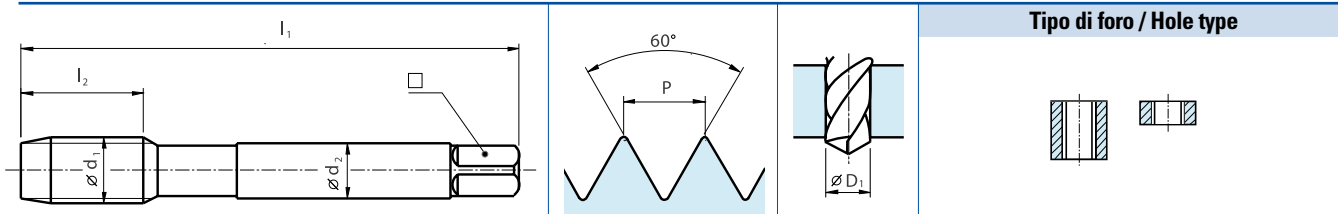
HSS-E

DIN 371

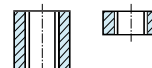
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM060HP-AB02	M 2	x	0.4	45	8	2.8	2.1	1.6
PRM060HP-AB02.5	M 2.5	x	0.45	50	9	2.8	2.1	2.05
PRM060HP-AB03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM060HP-AB04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM060HP-AB05	M 5	x	0.8	70	14	6	4.9	4.2
PRM060HP-AB06	M 6	x	1	80	16	6	4.9	5
PRM060HP-AB08	M 8	x	1.25	90	18	8	6.2	6.8
PRM060HP-AB10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI PASSANTI VAPORIZZATI PRM060HP-BB
MACHINE TAPS PRM060HP-BB
MASCHINENGEWINDEBOHRER PRM060HP-BB


 Tipo
Type

VA

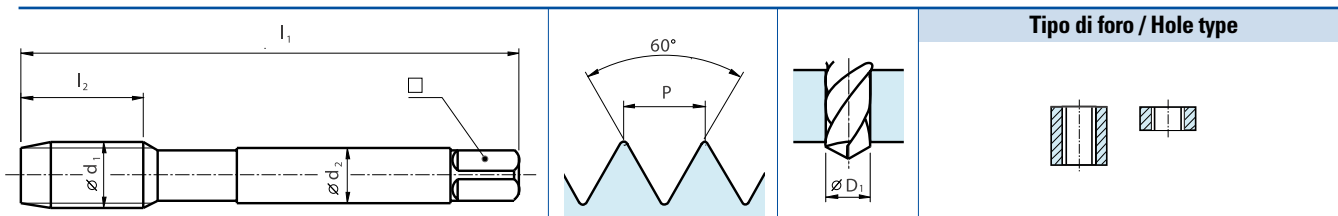
HSS-E

DIN 376

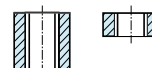
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM060HP-BB12	M12	x	1.75	110	24	9	7	10.2
PRM060HP-BB14	M14	x	2	110	25	11	9	12
PRM060HP-BB16	M16	x	2	110	27	12	9	14
PRM060HP-BB18	M18	x	2.5	125	32	14	11	15.5
PRM060HP-BB20	M20	x	2.5	140	32	16	12	17.5
PRM060HP-BB24	M24	x	3	160	36	18	14.5	21

MASCHI A MACCHINA FORI PASSANTI RIVESTITI HARDLUBE PRM070HP-AB
MACHINE TAPS PRM070HP-AB
MASCHINENGEWINDEBOHRER PRM070HP-AB


 Tipo
Type

VA

HSS-E

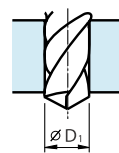
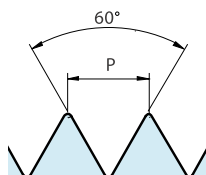
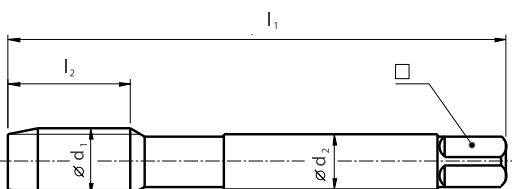
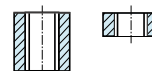
DIN 371

6H



Hardlube

Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM070HP-AB02	M 2	x	0.4	45	8	2.8	2.1	1.6
PRM070HP-AB02.5	M 2.5	x	0.45	50	9	2.8	2.1	2.05
PRM070HP-AB03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM070HP-AB04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM070HP-AB05	M 5	x	0.8	70	14	6	4.9	4.2
PRM070HP-AB06	M 6	x	1	80	16	6	4.9	5
PRM070HP-AB08	M 8	x	1.25	90	18	8	6.2	6.8
PRM070HP-AB10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI PASSANTI RIVESTITI HARDLUBE PRM070HP-BB
MACHINE TAPS PRM070HP-BB
MASCHINENGEWINDEBOHRER PRM070HP-BB


 Tipo
Type

VA

HSS-E

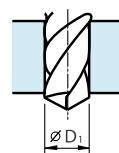
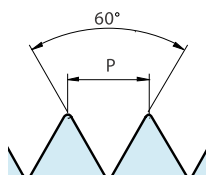
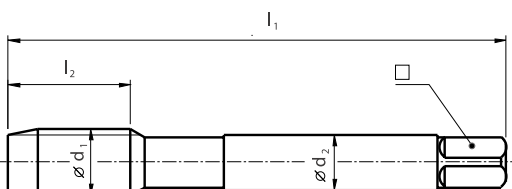
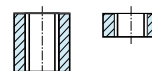
DIN 376

6H



Hardlube

Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM070HP-BB12	M12	x	1.75	110	24	9	7	10.2
PRM070HP-BB14	M14	x	2	110	25	11	9	12
PRM070HP-BB16	M16	x	2	110	27	12	9	14
PRM070HP-BB18	M18	x	2.5	125	32	14	11	15.5
PRM070HP-BB20	M20	x	2.5	140	32	16	12	17.5
PRM070HP-BB24	M24	x	3	160	36	18	14.5	21

MASCHI A MACCHINA MULTI-TAPS PRM490AB
MACHINE TAPS MULTI-TAPS PRM490AB
MASCHINENGEWINDEBOHRER MULTI-TAPS PRM490AB

New



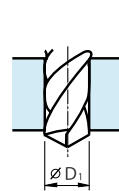
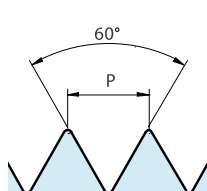
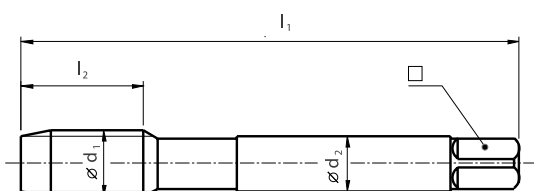
Tipo
Type

VAX

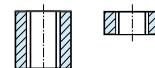
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d1 mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM490AB03	M3	56	11	3.5	2.7	2.5
PRM490AB04	M4	63	13	4.5	3.4	3.3
PRM490AB05	M5	70	15	6	4.9	4.2
PRM490AB06	M6	80	17	6	4.9	5
PRM490AB08	M8	90	20	8	6.2	6.8
PRM490AB10	M10	100	22	10	8	8.5

MASCHI A MACCHINA MULTI-TAPS PRM490BB
MACHINE TAPS MULTI-TAPS PRM490BB
MASCHINENGEWINDEBOHRER MULTI-TAPS PRM490BB

New



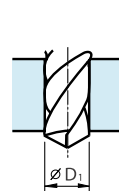
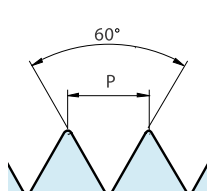
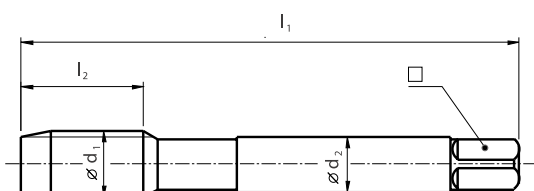
Tipo
Type

VAX

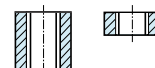
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d1 mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM490BB12	M12	110	24	9	7	10.2
PRM490BB14	M14	110	26	11	9	12
PRM490BB16	M16	110	27	12	9	14

MASCHI A MACCHINA FORI CIECHI VAPORIZZATI PRM650HP-AC
MACHINE TAPS PRM650HP-AC
MASCHINENGEWINDEBOHRER PRM650HP-AC



DIN 371

 Tipo
Type

VAX

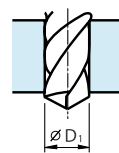
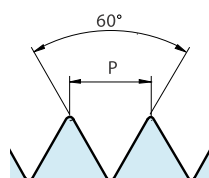
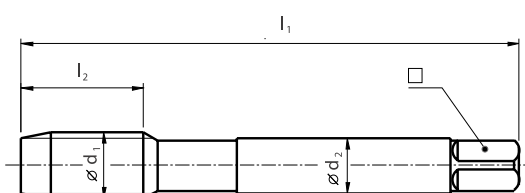
HSS-E

DIN 371

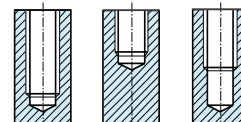
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM650HP-AC03	M 3	0.5	56	7	3.5	2.7	2.5	1.6
PRM650HP-AC04	M 4	0.7	63	8	4.5	3.4	3.3	2.05
PRM650HP-AC05	M 5	0.8	70	9	6	4.9	4.2	2.5
PRM650HP-AC06	M 6	1	80	10	6	4.9	5	3.3
PRM650HP-AC08	M 8	1.25	90	13	8	6.2	6.8	4.2
PRM650HP-AC10	M10	1.5	100	15	10	8	8.5	5
PRM070HP-AB08	M 8	x	1.25	90	18	8	6.2	6.8
PRM070HP-AB10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI CIECHI VAPORIZZATI PRM650HP-BC
MACHINE TAPS PRM650HP-BC
MASCHINENGEWINDEBOHRER PRM650HP-BC



DIN 376

 Tipo
Type

VAX

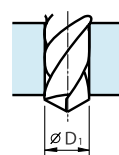
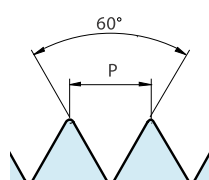
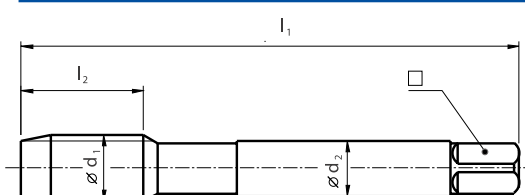
HSS-E

DIN 376

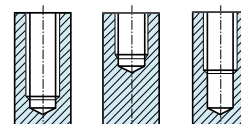
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM650HP-BC12	M12	1.75	110	18	9	7	10.2	10.2
PRM650HP-BC14	M14	2	110	20	11	9	12	12
PRM650HP-BC16	M16	2	110	20	12	9	14	14
PRM650HP-BC18	M18	2.5	125	25	14	11	15.5	15.5
PRM650HP-BC20	M20	2.5	140	25	16	12	17.5	17.5
PRM650HP-BC24	M24	3	160	30	18	14.5	21	21



MASCHI A MACCHINA FORI CIECHI MULTI-TAPS PRM680AC
MACHINE TAPS MULTI-TAPS PRM680AC
MASCHINENGEWINDEBOHRER MULTI-TAPS PRM680AC



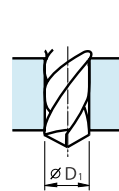
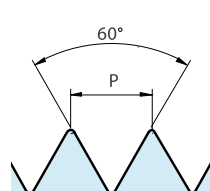
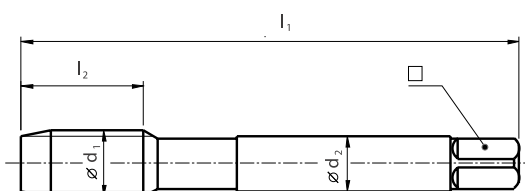
Tipo
Type

VAX

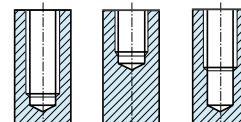
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d1 mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM680AC03	M3	56	6	3.5	2.7	2.5
PRM680AC04	M4	63	7	4.5	3.4	3.3
PRM680AC05	M5	70	8	6	4.9	4.2
PRM680AC06	M6	80	10	6	4.9	5
PRM680AC08	M8	90	13	8	6.2	6.8
PRM680AC10	M10	100	15	10	8	8.5



MASCHI A MACCHINA FORI CIECHI MULTI-TAPS PRM680BC
MACHINE TAPS MULTI-TAPS PRM680BC
MASCHINENGEWINDEBOHRER MULTI-TAPS PRM680BC



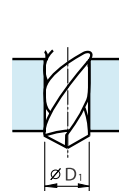
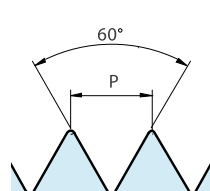
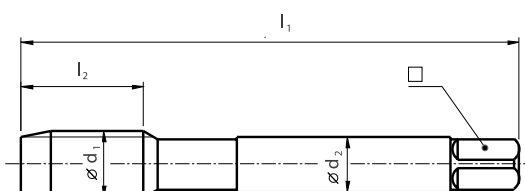
Tipo
Type

VAX

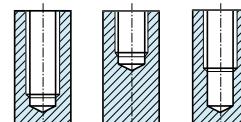
HSS-E

DIN 376

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d1 mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM680BC12	M12	110	18	9	7	10.2
PRM680BC14	M14	110	20	11	9	12
PRM680BC16	M16	110	20	12	9	14

MASCHI A MACCHINA FORI CIECHI RIVESTITI HARDLUBE PRM670HP-AC
MACHINE TAPS PRM670HP-AC
MASCHINENGEWINDEBOHRER PRM670HP-AC



DIN 371

 Tipo
Type

VAX

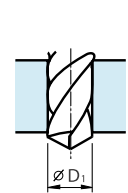
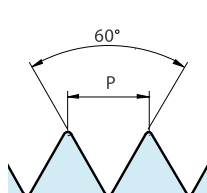
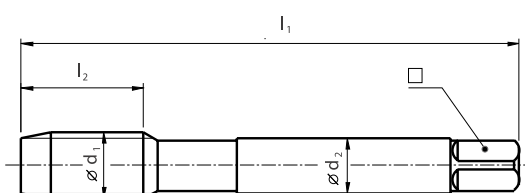
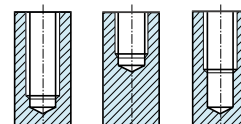
HSS-E

DIN 371

6H



Hardlube


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM670HP-AC03	M 3	x	0.5	56	7	3.5	2.7	2.5
PRM670HP-AC04	M 4	x	0.7	63	8	4.5	3.4	3.3
PRM670HP-AC05	M 5	x	0.8	70	9	6	4.9	4.2
PRM670HP-AC06	M 6	x	1	80	10	6	4.9	5
PRM670HP-AC08	M 8	x	1.25	90	13	8	6.2	6.8
PRM670HP-AC10	M10	x	1.5	100	15	10	8	8.5

MASCHI A MACCHINA FORI CIECHI RIVESTITI HARDLUBE PRM670HP-BC
MACHINE TAPS PRM670HP-BC
MASCHINENGEWINDEBOHRER PRM670HP-BC



DIN 376

 Tipo
Type

VAX

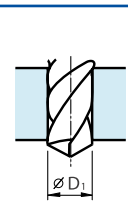
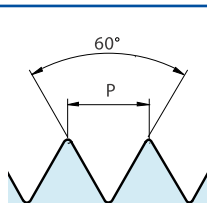
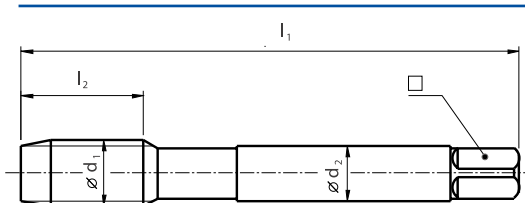
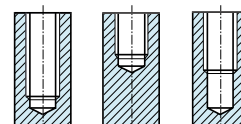
HSS-E

DIN 376

6H



Hardlube


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM670HP-BC12	M12	x	1.75	110	18	9	7	10.2
PRM670HP-BC14	M14	x	2	110	20	11	9	12
PRM670HP-BC16	M16	x	2	110	20	12	9	14
PRM670HP-BC18	M18	x	2.5	125	25	14	11	15.5
PRM670HP-BC20	M20	x	2.5	140	25	16	12	17.5
PRM670HP-BC24	M24	x	3	160	30	18	14.5	21

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiCN PRM690HP-AC
MACHINE TAPS PRM690HP-AC
MASCHINENGEWINDEBOHRER PRM690HP-AC



DIN 371

 Tipo
Type

TiH

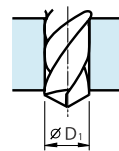
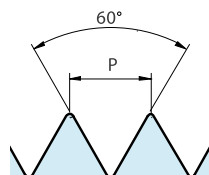
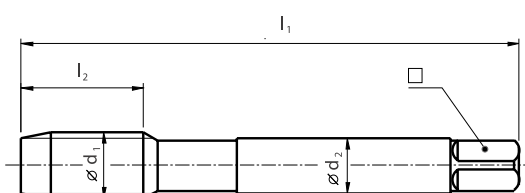
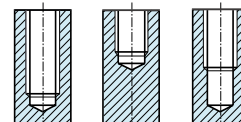
HSS-E

DIN 371

6H



TiCN


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM690HP-AC03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM690HP-AC04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM690HP-AC05	M 5	x	0.8	70	14	6	4.9	4.2
PRM690HP-AC06	M 6	x	1	80	16	6	4.9	5
PRM690HP-AC08	M 8	x	1.25	90	18	8	6.2	6.8
PRM690HP-AC10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI CIECHI RIVESTITI TiCN PRM690HP-BC
MACHINE TAPS PRM690HP-BC
MASCHINENGEWINDEBOHRER PRM690HP-BC



DIN 376

 Tipo
Type

TiH

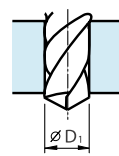
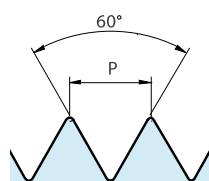
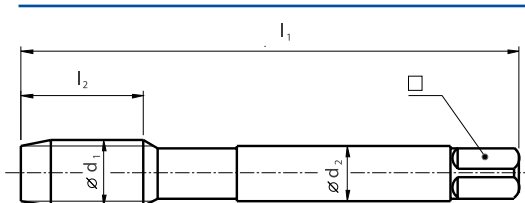
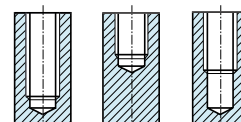
HSS-E

DIN 376

6H



TiCN


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM690HP-BC12	M12	x	1.75	110	24	9	7	10.2
PRM690HP-BC16	M16	x	2	110	27	12	9	14

MASCHI A RULLARE RIVESTITI TiN **PRM730HP-AC**

MACHINE TAPS **PRM730HP-AC**

MASCHINENGEWINDEBOHRER **PRM730HP-AC**



DIN 371

 Tipo
Type

N

HSS-E

DIN 371

6HX



TiN

CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Tipo di foro / Hole type	
								Ø D ₁ Diametro di Preforatura Tapping drill diameter	
PRM730HP-AC03	M 3	x	0.5	56	10	3.5	2.7		
PRM730HP-AC04	M 4	x	0.7	63	12	4.5	3.4		
PRM730HP-AC05	M 5	x	0.8	70	14	6	4.9		
PRM730HP-AC06	M 6	x	1	80	16	6	4.9		
PRM730HP-AC08	M 8	x	1.25	90	18	8	6.2		
PRM730HP-AC10	M10	x	1.5	100	20	10	8		

MASCHI A RULLARE RIVESTITI TiN **PRM730HP-BC**

MACHINE TAPS **PRM730HP-BC**

MASCHINENGEWINDEBOHRER **PRM730HP-BC**



DIN 376

 Tipo
Type

N

HSS-E

DIN 376

6HX



TiN

CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Tipo di foro / Hole type	
								Ø D ₁ Diametro di Preforatura Tapping drill diameter	
PRM730HP-BC12	M12	x	1.75	110	24	9	7		

MASCHI A MACCHINA FORI CIECHI/PASSANTI NITRURATI PRM710HP-AC
MACHINE TAPS PRM710HP-AC
MASCHINENGEWINDEBOHRER PRM710HP-AC



DIN 371

 Tipo
Type

GG

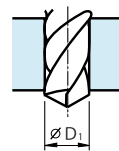
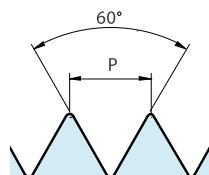
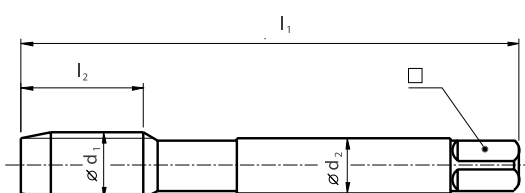
HSS-E

DIN 371

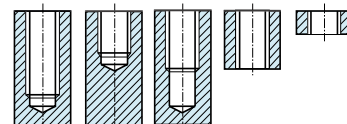
6HX



NI



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM710HP-AC03	M 3	x	0.5	56	10	3.5	2.7	2.5
PRM710HP-AC04	M 4	x	0.7	63	12	4.5	3.4	3.3
PRM710HP-AC05	M 5	x	0.8	70	14	6	4.9	4.2
PRM710HP-AC06	M 6	x	1	80	16	6	4.9	5
PRM710HP-AC08	M 8	x	1.25	90	18	8	6.2	6.8
PRM710HP-AC10	M10	x	1.5	100	20	10	8	8.5

MASCHI A MACCHINA FORI CIECHI/PASSANTI NITRURATI PRM710HP-BC
MACHINE TAPS PRM710HP-BC
MASCHINENGEWINDEBOHRER PRM710HP-BC



DIN 376

 Tipo
Type

GG

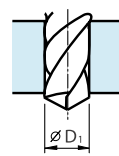
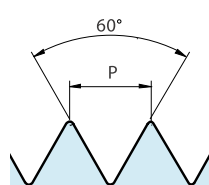
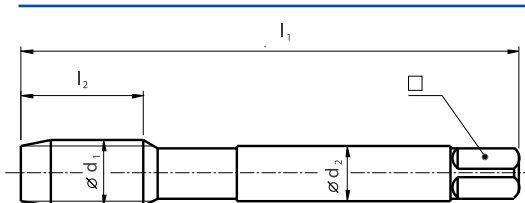
HSS-E

DIN 376

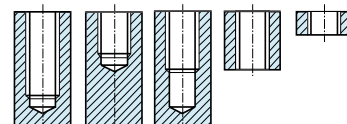
6HX



NI



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM710HP-BC12	M12	x	1.75	110	24	9	7	10.2
PRM710HP-BC14	M14	x	2	110	25	11	9	12
PRM710HP-BC16	M16	x	2	110	27	12	9	14
PRM710HP-BC18	M18	x	2.5	125	32	14	11	15.5
PRM710HP-BC20	M20	x	2.5	140	32	16	12	17.5

MASCHI A MACCHINA PRM740AC

MACHINE TAPS PRM740AC

MASCHINENGEWINDEBOHRER PRM740AC



Tipo
Type

GG

HSS-E

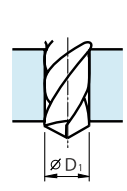
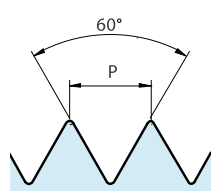
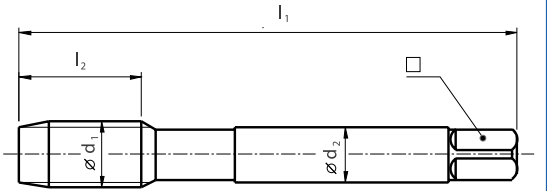
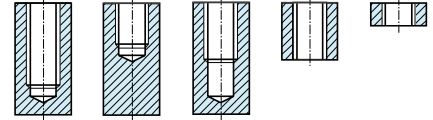
DIN 371

6HX



TiCN

Tipo di foro / Hole type



CODICE CODE No.	\varnothing d ₁ mm	x	P mm	l ₁	l ₂	\varnothing d ₂	□	\varnothing D ₁ Diametro di Preforatura Tapping drill diameter
PRM740AC03	3	x	0.5	56	11	3.5	2.7	2.5
PRM740AC04	4	x	0.7	63	13	4.5	3.4	3.3
PRM740AC05	5	x	0.8	70	15	6	4.9	4.2
PRM740AC06	6	x	1	80	17	6	4.9	5
PRM740AC08	8	x	1.25	90	20	8	6.2	6.8
PRM740AC10	10	x	1.5	100	22	10	8	8.5

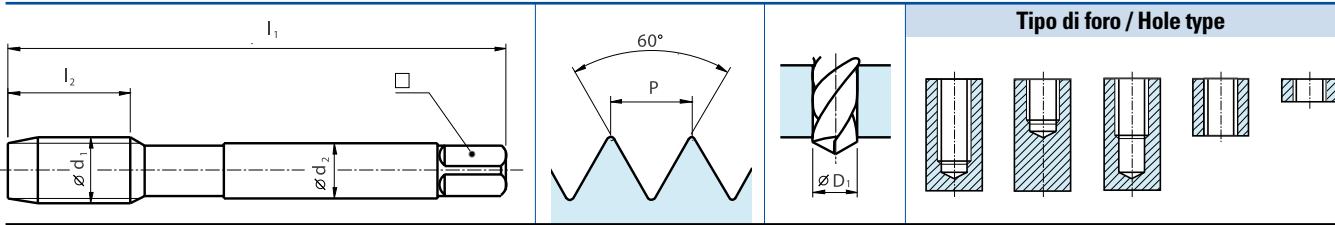
MASCHI A MACCHINA METALLO DURO **PRM760BC**

MACHINE TAPS HM **PRM760BC**

MASCHINENGEWINDEBOHRER VHM **PRM760BC**


Tipo Type
GG

HM DIN 376 6HX



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM760BC12	12	x	1.75	110	24	9	7	10.2
PRM760BC14	14	x	2	110	26	11	9	12
PRM760BC16	16	x	2	110	27	12	9	14
PRM760BC18	18	x	2.5	125	30	14	11	15.5
PRM760BC20	20	x	2.5	140	32	16	12	17.5

MASCHI EXTRALUNGHI FORI PASSANTI **PRM570HP-AB**

MACHINE TAPS **PRM570HP-AB**

MASCHINENGEWINDEBOHRER **PRM570HP-AB**


 Tipo
Type

N

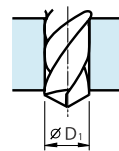
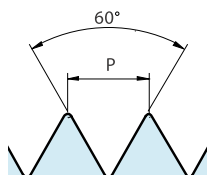
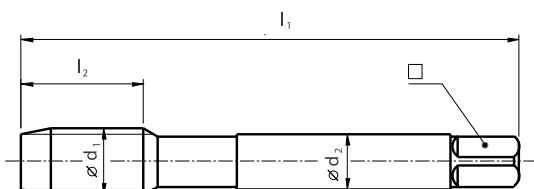
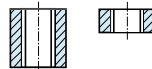
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM570HP-AB03	M 3	x	0.5	100	10	3.5	2.7	2.5
PRM570HP-AB04	M 4	x	0.7	125	12	4.5	3.4	3.3
PRM570HP-AB05	M 5	x	0.8	140	14	6	4.9	4.2
PRM570HP-AB06	M 6	x	1	160	16	6	4.9	5
PRM570HP-AB08	M 8	x	1.25	180	18	8	6.2	6.8
PRM570HP-AB10	M10	x	1.5	200	20	10	8	8.5

MASCHI EXTRALUNGHI FORI PASSANTI **PRM570HP-BB**

MACHINE TAPS **PRM570HP-BB**

MASCHINENGEWINDEBOHRER **PRM570HP-BB**


 Tipo
Type

N

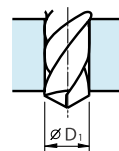
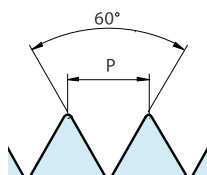
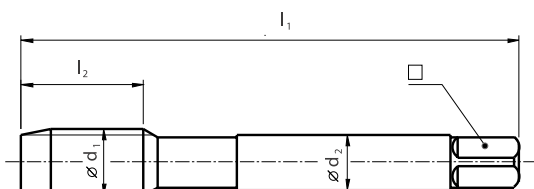
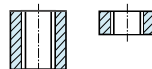
HSS-E

DIN 376

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM570HP-BB06	M6	x	1	160	16	4.5	3.4	5
PRM570HP-BB08	M8	x	1.25	180	18	6	4.9	6.8
PRM570HP-BB10	M10	x	1.5	200	20	7	5.5	8.5
PRM570HP-BB12	M12	x	1.75	220	24	9	7	10.2

MASCHI EXTRALUNGHI FORI CIECHI **PRM580HP-AB**

MACHINE TAPS **PRM580HP-AB**

MASCHINENGEWINDEBOHRER **PRM580HP-AB**



DIN 371

 Tipo
Type

N

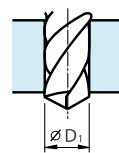
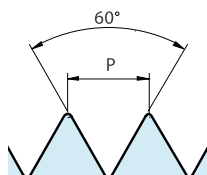
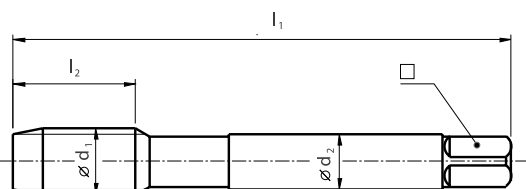
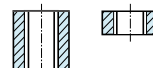
HSS-E

DIN 371

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM580HP-AB03	M 3	x	0.5	100	10	3.5	2.7	2.5
PRM580HP-AB04	M 4	x	0.7	125	12	4.5	3.4	3.3
PRM580HP-AB05	M 5	x	0.8	140	14	6	4.9	4.2
PRM580HP-AB06	M 6	x	1	160	16	6	4.9	5
PRM580HP-AB08	M 8	x	1.25	180	18	8	6.2	6.8
PRM580HP-AB10	M10	x	1.5	200	20	10	8	8.5

MASCHI EXTRALUNGHI FORI CIECHI **PRM580HP-BB**

MACHINE TAPS **PRM580HP-BB**

MASCHINENGEWINDEBOHRER **PRM580HP-BB**



DIN 376

 Tipo
Type

N

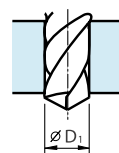
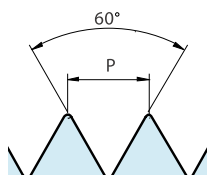
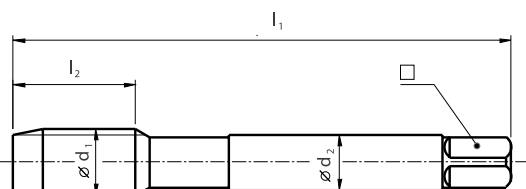
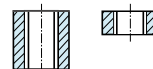
HSS-E

DIN 376

6H



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM580HP-BB06	M6	x	1	160	16	4.5	3.4	5
PRM580HP-BB08	M8	x	1.25	180	18	6	4.9	6.8
PRM580HP-BB10	M10	x	1.5	200	20	7	5.5	8.5
PRM580HP-BB12	M12	x	1.75	220	24	9	7	10.2

MASCHI EXTRALUNGHI FORI CIECHI/PASSANTI NITRURATI PRM590HP-AB
MACHINE TAPS PRM590HP-AB
MASCHINGEWINDEBOHRER PRM590HP-AB



DIN 371

 Tipo
Type

GG

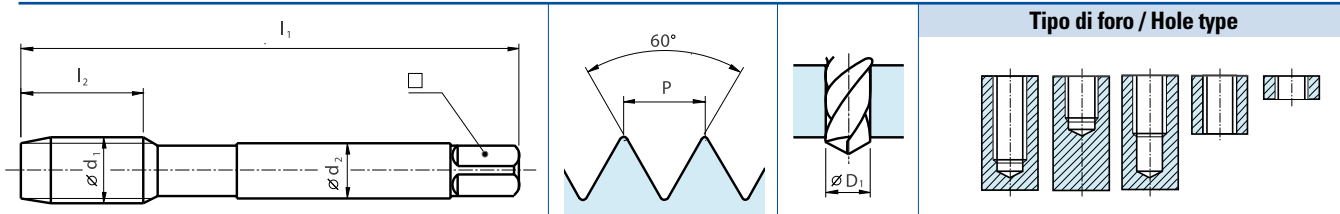
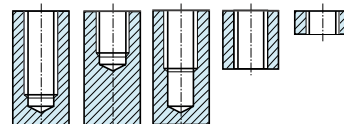
HSS-E

DIN 371

6HX



NI


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM590HP-AB03	M 3	x	0.5	100	10	3.5	2.7	2.5
PRM590HP-AB04	M 4	x	0.7	125	12	4.5	3.4	3.3
PRM590HP-AB05	M 5	x	0.8	140	14	6	4.9	4.2
PRM590HP-AB06	M 6	x	1	160	16	6	4.9	5
PRM590HP-AB08	M 8	x	1.25	180	18	8	6.2	6.8
PRM590HP-AB10	M10	x	1.5	200	20	10	8	8.5

MASCHI EXTRALUNGHI FORI CIECHI/PASSANTI NITRURATI PRM590HP-BB
MACHINE TAPS PRM590HP-BB
MASCHINGEWINDEBOHRER PRM590HP-BB



DIN 376

 Tipo
Type

GG

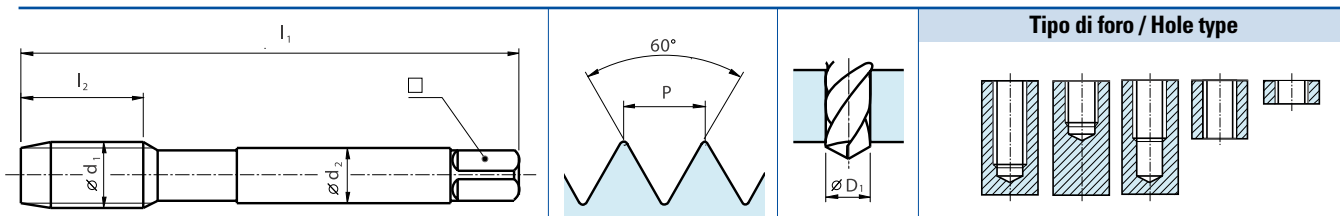
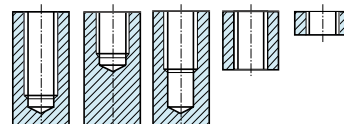
HSS-E

DIN 376

6HX



NI


Tipo di foro / Hole type


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM590HP-BB10	M10	x	1.5	200	20	7	5.5	8.5
PRM590HP-BB12	M12	x	1.75	220	24	9	7	10.2

SERIE DI MASCHI PASSO FINE PRM100F

SETS OF TAPS PRM100F

GEWINDEBOHRER - SATZ PRM100F


 Tipo
Type

N

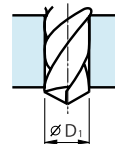
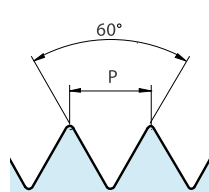
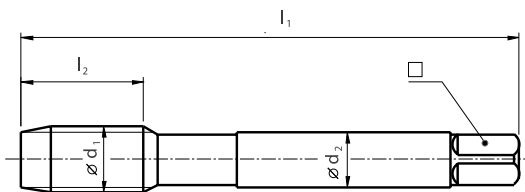
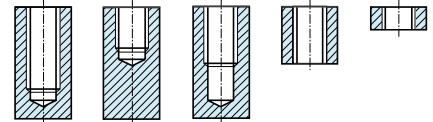
HSS

DIN 2181

6H



Tipo di foro / Hole type



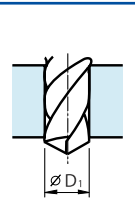
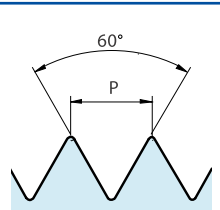
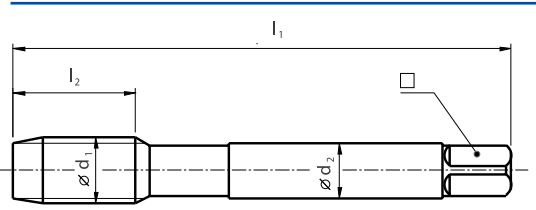
CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM100FS0303	3	x	0.35	42	8	3.5	2.7	2.65
PRM100FS0405	4	x	0.5	48	9	4.5	3.4	3.5
PRM100FS0505	5	x	0.5	52	11	6	4.9	4.5
PRM100FS0605	6	x	0.5	56	12	6	4.9	5.5
PRM100FS0607	6	x	0.75	56	12	6	4.9	5.2
PRM100FS0707	7	x	0.75	56	14	6	4.9	6.2
PRM100FS0805	8	x	0.5	63	14	6	4.9	7.5
PRM100FS0807	8	x	0.75	63	14	6	4.9	7.2
PRM100FS0810	8	x	1	63	17	6	4.9	7
PRM100FS0910	9	x	1	63	17	7	5.5	8
PRM100FS1007	10	x	0.75	63	18	7	5.5	9.2
PRM100FS1010	10	x	1	63	18	7	5.5	9
PRM100FS1012	10	x	1.25	70	22	7	5.5	8.8
PRM100FS1210	12	x	1	70	18	9	7	11
PRM100FS1212	12	x	1.25	70	20	9	7	10.8
PRM100FS1215	12	x	1.5	70	20	9	7	10.5
PRM100FS1310	13	x	1	70	18	11	9	12
PRM100FS1410	14	x	1	70	18	11	9	13
PRM100FS1412	14	x	1.25	70	20	11	9	12.8
PRM100FS1415	14	x	1.5	70	20	11	9	12.5
PRM100FS1510	15	x	1	70	18	12	9	14
PRM100FS1515	15	x	1.5	70	20	12	9	13.5
PRM100FS1610	16	x	1	70	18	12	9	15
PRM100FS1615	16	x	1.5	70	20	12	9	14.5
PRM100FS1810	18	x	1	80	18	14	11	17
PRM100FS1815	18	x	1.5	80	22	14	11	16.5
PRM100FS2010	20	x	1	80	18	16	12	19
PRM100FS2015	20	x	1.5	80	22	16	12	18.5
PRM100FS2210	22	x	1	80	18	18	14.5	21
PRM100FS2215	22	x	1.5	80	22	18	14.5	20.5
PRM100FS2410	24	x	1	90	18	18	14.5	23
PRM100FS2415	24	x	1.5	90	22	18	14.5	22.5
PRM100FS2420	24	x	2	90	22	18	14.5	22
PRM100FS2515	25	x	1.5	90	22	18	14.5	23.5
PRM100FS2615	26	x	1.5	90	22	18	14.5	24.5
PRM100FS2715	27	x	1.5	90	22	20	16	25.5
PRM100FS2720	27	x	2	90	22	20	16	25
PRM100FS2815	28	x	1.5	90	22	20	16	26.5
PRM100FS2820	28	x	2	90	22	20	16	26
PRM100FS3015	30	x	1.5	90	22	22	18	28.5
PRM100FS3020	30	x	2	90	22	22	18	28

**MASCHI A MACCHINA PRM201FB
MACHINE TAPS PRM201FB
MASCHINENGEWINDEBOHRER PRM201FB**

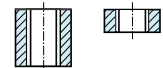


Tipo Type **N**

HSS-E DIN 374 6H  



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM201FB0405	4	x	0.5	63	10	2.8	2.1	3.5
PRM201FB0505	5	x	0.5	70	11	3.5	2.7	4.5
PRM201FB0607	6	x	0.75	80	13	4.5	3.4	5.2
PRM201FB0707	7	x	0.75	80	14	5.5	4.3	6.2
PRM201FB0810	8	x	1	90	17	6	4.9	7
PRM201FB1010	10	x	1	90	18	7	5.5	9
PRM201FB1012	10	x	1.25	100	22	7	5.5	8.8
PRM201FB1210	12	x	1	100	18	9	7	11
PRM201FB1212	12	x	1.25	100	22	9	7	10.8
PRM201FB1215	12	x	1.5	100	22	9	7	10.5
PRM201FB1410	14	x	1	100	18	11	9	13
PRM201FB1412	14	x	1.25	100	22	11	9	12.8
PRM201FB1415	14	x	1.5	100	22	11	9	12.5
PRM201FB1610	16	x	1	100	18	12	9	15
PRM201FB1615	16	x	1.5	100	22	12	9	14.5
PRM201FB1810	18	x	1	110	20	14	11	17
PRM201FB1815	18	x	1.5	110	25	14	11	16.5
PRM201FB2010	20	x	1	125	20	16	12	19
PRM201FB2015	20	x	1.5	125	25	16	12	18.5
PRM201FB2210	22	x	1	125	20	18	14.5	21
PRM201FB2215	22	x	1.5	125	25	18	14.5	20.5
PRM201FB2415	24	x	1.5	140	27	18	14.5	22.5
PRM201FB2420	24	x	2	140	27	18	14.5	22
PRM201FB2615	26	x	1.5	140	28	18	14.5	24.5
PRM201FB2715	27	x	1.5	140	28	20	16	25.5
PRM201FB2720	27	x	2	140	28	20	16	25
PRM201FB2815	28	x	1.5	140	28	20	16	26.5
PRM201FB3015	30	x	1.5	150	30	22	18	28.5
PRM201FB3020	30	x	2	150	30	22	18	28

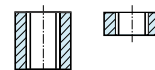
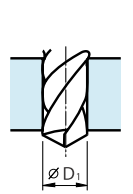
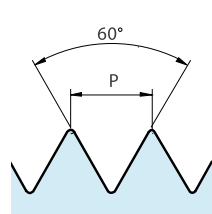
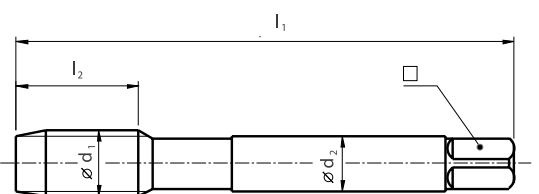


MASCHI A MACCHINA PRM531FB MACHINE TAPS PRM531FB MASCHINENGEWINDEBOHRER PRM531FB

Tipo
Type **N**

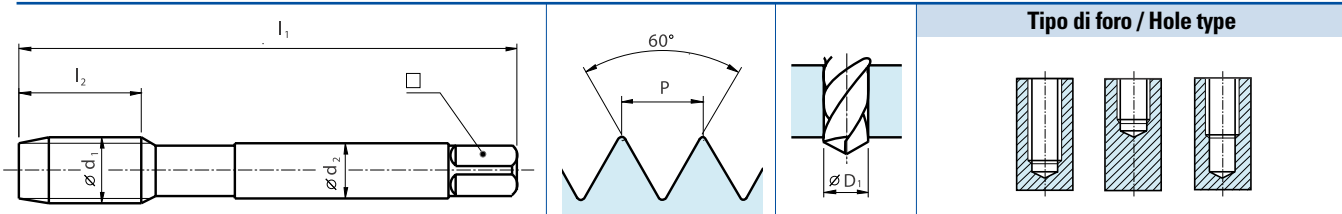
HSS-E DIN 374 6H TiN

Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM531FB0405	4	x	0.5	63	10	2.8	2.1	3.5
PRM531FB0505	5	x	0.5	70	11	3.5	2.7	4.5
PRM531FB0607	6	x	0.75	80	13	4.5	3.4	5.2
PRM531FB0810	8	x	1	90	17	6	4.9	7
PRM531FB1010	10	x	1	90	18	7	5.5	9
PRM531FB1012	10	x	1.25	100	22	7	5.5	8.8
PRM531FB1210	12	x	1	100	18	9	7	11
PRM531FB1212	12	x	1.25	100	22	9	7	10.8
PRM531FB1215	12	x	1.5	100	22	9	7	10.5
PRM531FB1410	14	x	1	100	18	11	9	13
PRM531FB1412	14	x	1.25	100	22	11	9	12.8
PRM531FB1415	14	x	1.5	100	22	11	9	12.5
PRM531FB1610	16	x	1	100	18	12	9	15
PRM531FB1615	16	x	1.5	100	22	12	9	14.5
PRM531FB1810	18	x	1	110	20	14	11	17
PRM531FB1815	18	x	1.5	110	25	14	11	16.5
PRM531FB2010	20	x	1	125	20	16	12	19
PRM531FB2015	20	x	1.5	125	25	16	12	18.5
PRM531FB2210	22	x	1	125	20	18	14.5	21
PRM531FB2215	22	x	1.5	125	25	18	14.5	20.5
PRM531FB2415	24	x	1.5	140	27	18	14.5	22.5
PRM531FB2420	24	x	2	140	27	18	14.5	22
PRM531FB2615	26	x	1.5	140	28	18	14.5	24.5
PRM531FB2715	27	x	1.5	140	28	20	16	25.5
PRM531FB2720	27	x	2	140	28	20	16	25
PRM531FB2815	28	x	1.5	140	28	20	16	26.5
PRM531FB3015	30	x	1.5	150	30	22	18	28.5
PRM531FB3020	30	x	2	150	30	22	18	28

MASCHI A MACCHINA **PRM601FC** MACHINE TAPS **PRM601FC** MASCHINENGEWINDEBOHRER **PRM601FC**


Tipo Type N
HSS-E DIN 374 6H


CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM601FC0405	4	x	0.5	63	5	2.8	2.1	3.5
PRM601FC0505	5	x	0.5	70	5	3.5	2.7	4.5
PRM601FC0607	6	x	0.75	80	8	4.5	3.4	5.2
PRM601FC0810	8	x	1	90	10	6	4.9	7
PRM601FC1010	10	x	1	90	10	7	5.5	9
PRM601FC1012	10	x	1.25	100	16	7	5.5	8.8
PRM601FC1210	12	x	1	100	11	9	7	11
PRM601FC1212	12	x	1.25	100	15	9	7	10.8
PRM601FC1215	12	x	1.5	100	15	9	7	10.5
PRM601FC1410	14	x	1	100	11	11	9	13
PRM601FC1412	14	x	1.25	100	15	11	9	12.8
PRM601FC1415	14	x	1.5	100	15	11	9	12.5
PRM601FC1610	16	x	1	100	12	12	9	15
PRM601FC1615	16	x	1.5	100	15	12	9	14.5
PRM601FC1810	18	x	1	110	13	14	11	17
PRM601FC1815	18	x	1.5	110	17	14	11	16.5
PRM601FC2010	20	x	1	125	14	16	12	19
PRM601FC2015	20	x	1.5	125	17	16	12	18.5
PRM601FC2210	22	x	1	125	14	18	14.5	21
PRM601FC2215	22	x	1.5	125	17	18	14.5	20.5
PRM601FC2415	24	x	1.5	140	20	18	14.5	22.5
PRM601FC2420	24	x	2	140	20	18	14.5	22
PRM601FC2615	26	x	1.5	140	20	18	14.5	24.5
PRM601FC2715	27	x	1.5	140	20	20	16	25.5
PRM601FC2720	27	x	2	140	20	20	16	25
PRM601FC2815	28	x	1.5	140	20	20	16	26.5
PRM601FC3015	30	x	1.5	150	22	22	18	28.5
PRM601FC3020	30	x	2	150	22	22	18	28

MASCHI A MACCHINA PRM081FB

MACHINE TAPS PRM081FB

MASCHINENGEWINDEBOHRER PRM081FB


 Tipo
Type

VA

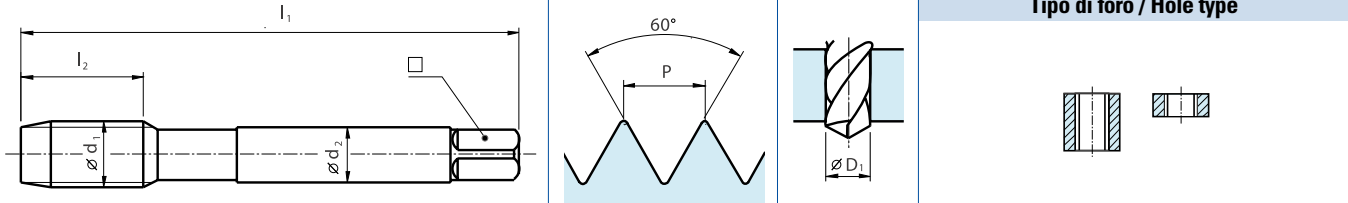
HSS-E

DIN 374

6HX



vap



Tipo di foro / Hole type

CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM081FB0405	4	x	0.5	63	10	2.8	2.1	3.5
PRM081FB0505	5	x	0.5	70	11	3.5	2.7	4.5
PRM081FB0607	6	x	0.75	80	13	4.5	3.4	5.2
PRM081FB0810	8	x	1	90	17	6	4.9	7
PRM081FB1010	10	x	1	90	18	7	5.5	9
PRM081FB1012	10	x	1.25	100	22	7	5.5	8.8
PRM081FB1210	12	x	1	100	18	9	7	11
PRM081FB1212	12	x	1.25	100	22	9	7	10.8
PRM081FB1215	12	x	1.5	100	22	9	7	10.5
PRM081FB1412	14	x	1.25	100	22	11	9	12.8
PRM081FB1415	14	x	1.5	100	22	11	9	12.5
PRM081FB1615	16	x	1.5	100	22	12	9	14.5
PRM081FB1815	18	x	1.5	110	25	14	11	16.5
PRM081FB2015	20	x	1.5	125	25	16	12	18.5
PRM081FB2215	22	x	1.5	125	25	18	14.5	20.5
PRM081FB2415	24	x	1.5	140	27	18	14.5	22.5

MASCHI A MACCHINA PRM640FC MACHINE TAPS PRM640FC MASCHINENGEWINDEBOHRER PRM640FC



Tipo Type

VA

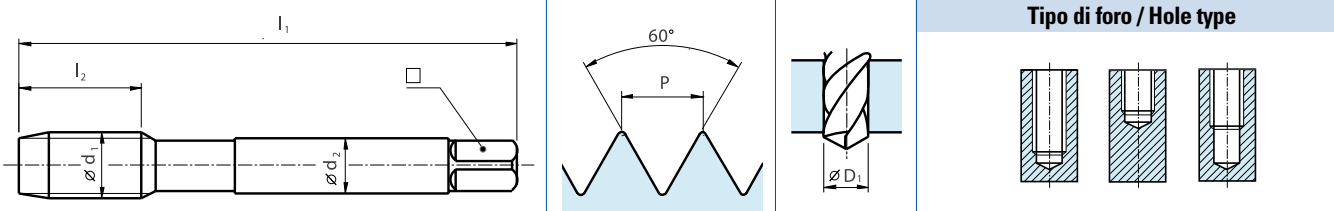
HSS-E

DIN 374

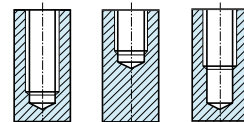
6H



vap



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ mm	x	P mm	l ₁	l ₂	Ø d ₂	□	Ø D ₁ Diametro di Preforatura Tapping drill diameter
PRM640FC0405	4	x	0.5	63	5	2.8	2.1	3.5
PRM640FC0505	5	x	0.5	70	5	3.5	2.7	4.5
PRM640FC0607	6	x	0.75	80	8	4.5	3.4	5.2
PRM640FC0810	8	x	1	90	10	6	4.9	7
PRM640FC1010	10	x	1	90	10	7	5.5	9
PRM640FC1012	10	x	1.25	100	16	7	5.5	8.8
PRM640FC1210	12	x	1	100	11	9	7	11
PRM640FC1212	12	x	1.25	100	15	9	7	10.8
PRM640FC1215	12	x	1.5	100	15	9	7	10.5
PRM640FC1412	14	x	1.25	100	15	11	9	12.8
PRM640FC1415	14	x	1.5	100	15	11	9	12.5
PRM640FC1615	16	x	1.5	100	15	12	9	14.5
PRM640FC1815	18	x	1.5	110	17	14	11	16.5
PRM640FC2015	20	x	1.5	125	17	16	12	18.5
PRM640FC2215	22	x	1.5	125	17	18	14.5	20.5
PRM640FC2415	24	x	1.5	140	20	18	14.5	22.5

MASCHI A MACCHINA **PRM940EB**

MACHINE TAPS **PRM940EB**

MASCHINGEWINDEBOHRER **PRM940EB**

DIN 2183

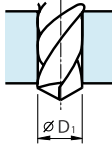
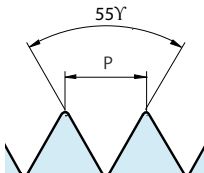
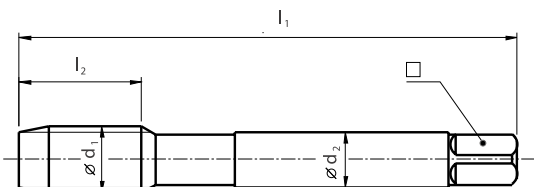

 Tipo
Type

N

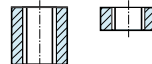
HSS-E

DIN 2183

-



Tipo di foro / Hole type



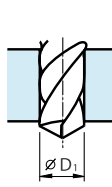
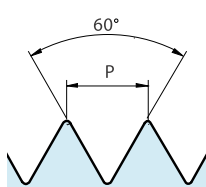
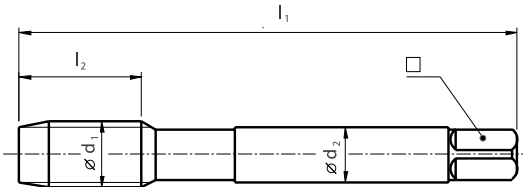
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PRM940EB0716	7/16	-	14	100	22	8	6.2	9.3
PRM940EB0120	1/2	-	12	110	25	9	7	10.5
PRM940EB0916	9/16	-	12	110	26	11	9	12
PRM940EB0580	5/8	-	11	110	27	12	9	13.5
PRM940EB0340	3/4	-	10	125	30	14	11	16.5
PRM940EB0780	7/8	-	9	140	32	18	14.5	19.25
PRM940EB1000	1	-	8	160	36	20	16	22
PRM940EB1180	1*1/8	-	7	180	40	22	18	24.75



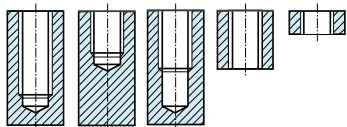
MASCHI A MACCHINA GAS NITRURATI FORI CIECHI/PASSANTI **PRM995HP-EC**
MACHINE TAPS **PRM995HP-EC**
MASCHINENGEWINDEBOHRER **PRM995HP-EC**

Tipo **GG**
Type

HSS-E **DIN ISO 228** 60° C NI



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ G	P mm	Lungh. Totale	Lungh. Filetto	Gambo d.	□	Preforo
PRM995HP-EC0180	1/8"	28	90	16	7	5.5	8.8
PRM995HP-EC0140	1/4"	19	100	22	11	9	11.8
PRM995HP-EC0380	3/8"	19	100	22	12	9	15.25
PRM995HP-EC0120	1/2"	14	125	25	16	12	19
PRM995HP-EC0340	3/4"	14	140	28	20	16	24.5
PRM995HP-EC1000	1"	11	160	30	25	20	30.75

MASCHI A MACCHINA GAS CONICO "RC" PRM965HP-EC MACHINE TAPS PRM965HP-EC MASCHINENGEWINDEBOHRER PRM965HP-EC



Tipo Type

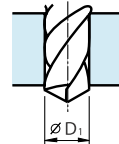
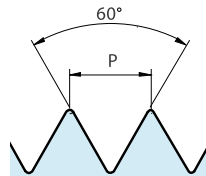
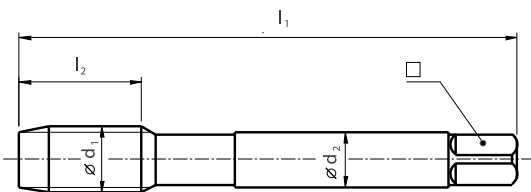
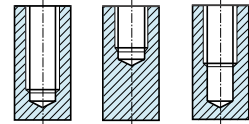
N

HSS-E

BS21 ISO 7/1



Tipo di foro / Hole type



CODICE CODE No.	Ø d ₁ G	P mm	Lungh. Totale	Lungh. Filetto	Gambo d.	□	Preforo
PRM965HP-EC0180	1/8"	28	90	13	7	5.5	8.3
PRM965HP-EC0140	1/4"	19	100	20	11	9	11.1
PRM965HP-EC0380	3/8"	19	110	20	12	9	14.5
PRM965HP-EC0120	1/2"	14	125	26	16	12	18.1
PRM965HP-EC0340	3/4"	14	140	26	20	16	23.5
PRM965HP-EC1000	1"	11	150	32	25	20	29.75



FRESE HSS-CO E ASP



HSS-CO AND ASP MILLS



HSS-CO UND ASP FRÄSER



2 TAGLI CORTE

2 FLUTE SHORT LENGTH

2 SCHNEIDEN KURZ



HSS Co8
DIN 327
N
≈ 30°
FLUTE 2
DIN 1835B
P. 190



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PR2-01,00	1.0	6	2.5	47
PR2-01,50	1.5	6	3	47
PR2-02,00	2.0	6	4	48
PR2-02,50	2.5	6	5	49
PR2-03,00	3.0	6	5	49
PR2-03,50	3.5	6	6	50
PR2-04,00	4.0	6	7	51
PR2-04,50	4.5	6	7	51
PR2-05,00	5.0	6	8	52
PR2-05,50	5.5	6	8	52
PR2-06,00	6.0	6	8	52
PR2-06,50	6.5	10	10	60
PR2-07,00	7.0	10	10	60
PR2-07,50	7.5	10	10	60
PR2-08,00	8.0	10	11	61
PR2-08,50	8.5	10	11	61
PR2-09,00	9.0	10	11	61
PR2-09,50	9.5	10	11	61
PR2-10,00	10.0	10	13	63
PR2-10,50	10.5	12	13	70
PR2-11,00	11.0	12	13	70
PR2-12,00	12.0	12	16	73
PR2-13,00	13.0	12	16	73
PR2-14,00	14.0	12	16	73
PR2-15,00	15.0	12	16	73
PR2-16,00	16.0	16	19	79
PR2-17,00	17.0	16	19	79
PR2-18,00	18.0	16	19	79
PR2-20,00	20.0	20	22	88
PR2-22,00	22.0	20	22	88
PR2-25,00	25.0	25	26	102
PR2-26,00	26.0	25	26	102
PR2-28,00	28.0	25	26	102
PR2-30,00	30.0	25	26	102

				e8	h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28 0 -6	
	TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38 0 -8
		Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47 0 -9
TOLERANZEN NACH DIN 7160 & 7161		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59 0 -11	
		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73 0 -13	
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89 0 -16	

2 TAGLI rivestite Futura CORTE

2 FLUTE Futura coating SHORT LENGTH

2 SCHNEIDEN Futura Beschichtung KURZ



HSS Co8
DIN 327
N
≈ 30°
FLUTE 2
DIN 1835B
P. 191



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PR2-01,00XT	1.0	6	2.5	47
PR2-01,50XT	1.5	6	3	47
PR2-02,00XT	2.0	6	4	48
PR2-02,50XT	2.5	6	5	49
PR2-03,00XT	3.0	6	5	49
PR2-03,50XT	3.5	6	6	50
PR2-04,00XT	4.0	6	7	51
PR2-04,50XT	4.5	6	7	51
PR2-05,00XT	5.0	6	8	52
PR2-05,50XT	5.5	6	8	52
PR2-06,00XT	6.0	6	8	52
PR2-06,50XT	6.5	10	10	60
PR2-07,00XT	7.0	10	10	60
PR2-07,50XT	7.5	10	10	60
PR2-08,00XT	8.0	10	11	61
PR2-08,50XT	8.5	10	11	61
PR2-09,00XT	9.0	10	11	61
PR2-09,50XT	9.5	10	11	61
PR2-10,00XT	10.0	10	13	63
PR2-10,50XT	10.5	12	13	70
PR2-11,00XT	11.0	12	13	70
PR2-12,00XT	12.0	12	16	73
PR2-13,00XT	13.0	12	16	73
PR2-14,00XT	14.0	12	16	73
PR2-15,00XT	15.0	12	16	73
PR2-16,00XT	16.0	16	19	79
PR2-17,00XT	17.0	16	19	79
PR2-18,00XT	18.0	16	19	79
PR2-20,00XT	20.0	20	22	88
PR2-22,00XT	22.0	20	22	88
PR2-25,00XT	25.0	25	26	102
PR2-26,00XT	26.0	25	26	102
PR2-28,00XT	28.0	25	26	102
PR2-30,00XT	30.0	25	26	102

			e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3 from 1 to 3 von 1 bis 3	-14 -28	0 - 6
	TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	-20 -38	0 - 8
TOLERANZEN NACH DIN 7160 & 7161		Nominal-Diameter in mm	-25 -47	0 - 9
	da 10 a 18 over 10 to 18 über 10 bis 18	-32 -59	0 - 11	
	da 18 a 30 over 18 to 30 über 18 bis 30	-40 -73	0 - 13	
	da 30 a 50 over 30 to 50 über 30 bis 50	-50 -89	0 - 16	

2 TAGLI ASP CORTE

2 FLUTE SHORT LENGTH END MILL

2 SCHNEIDEN FRÄSER, KURZ

- 2 Tagli studiata per cave • Two-Flute design for slotting.
- Lavorazioni ad alta velocità (HSC) su materiali di difficile truciolabilità .
Suitable for high-speed cutting of difficult - to - cut materials.



P. 190

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA2-01,00	1	6	2.5	47
PRA2-02,00	2	6	4	48
PRA2-03,00	3	6	5	49
PRA2-04,00	4	6	7	51
PRA2-05,00	5	6	8	52
PRA2-06,00	6	6	8	52
PRA2-07,00	7	10	10	60
PRA2-08,00	8	10	11	61
PRA2-09,00	9	10	11	61
PRA2-10,00	10	10	13	63
PRA2-12,00	12	12	16	73
PRA2-14,00	14	12	16	73
PRA2-16,00	16	16	19	79
PRA2-18,00	18	16	19	79
PRA2-20,00	20	20	22	88
PRA2-22,00	22	20	22	88
PRA2-25,00	25	25	26	102

			e8	h6			
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6	
	TOLLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 - 8
TOLERANZEN NACH DIN 7160 & 7161		Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 - 9
			da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 - 11
			da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 - 13

2 TAGLI ASP rivestite Nano CORTE

2 FLUTE Nano coating SHORT LENGTH END MILL

2 SCHNEIDEN Nano Beschichtung FRÄSER, KURZ



- 2 Tagli studiata per cave • Two-Flute design for slotting.
- Lavorazioni ad alta velocità (HSC) su materiali di difficile truciolabilità. Suitable for high-speed cutting of difficult - to - cut materials.
- Il nuovo rivestimento NANO è indicato per lavorazioni ad alta velocità (HSC). New developed NANO Coating suitable for high speed cutting.



P. 192

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA2-01,00NC	1	6	2.5	47
PRA2-02,00NC	2	6	4	48
PRA2-03,00NC	3	6	5	49
PRA2-04,00NC	4	6	7	51
PRA2-05,00NC	5	6	8	52
PRA2-06,00NC	6	6	8	52
PRA2-07,00NC	7	10	10	60
PRA2-08,00NC	8	10	11	61
PRA2-09,00NC	9	10	11	61
PRA2-10,00NC	10	10	13	63
PRA2-12,00NC	12	12	16	73
PRA2-14,00NC	14	12	16	73
PRA2-16,00NC	16	16	19	79
PRA2-18,00NC	18	16	19	79
PRA2-20,00NC	20	20	22	88
PRA2-22,00NC	22	20	22	88
PRA2-25,00NC	25	25	26	102

				e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28 0 -6
	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38 0 -8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47 0 -9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59 0 -11
TOLERANZEN NACH DIN 7160 & 7161		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73 0 -13



2 TAGLI EXTRA LUNGHE
2 FLUTE EXTRA LONG LENGTH
2 SCHNEIDEN EXTRA LANG



HSS Co8	DIN 844	N	$\approx 30^\circ$	FLUTE 2	DIN 1835B			P. 190
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Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMB SHANK DIAMETER h6	LUNGEZZA TAGLIANTE LENGTH OF CUT	LUNGEZZA TOTALE OVERAL LENGTH
PR2L-02,50	2.5	6	8	56
PR2L-03,00	3.0	6	8	56
PR2L-04,00	4.0	6	11	63
PR2L-05,00	5.0	6	13	68
PR2L-06,00	6.0	6	13	68
PR2L-07,00	7.0	10	16	80
PR2L-08,00	8.0	10	19	88
PR2L-10,00	10.0	10	22	95
PR2L-12,00	12.0	12	26	110
PR2L-14,00	14.0	12	26	110
PR2L-16,00	16.0	16	32	123
PR2L-18,00	18.0	16	32	123
PR2L-20,00	20.0	20	38	141
PR2L-22,00	22.0	20	38	141
PR2L-25,00	25.0	25	45	166
PR2L-30,00	30.0	25	45	166

					e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6
	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 - 38	0 - 8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 - 47	0 - 9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 - 59	0 - 11
TOLERANZEN NACH DIN 7160 & 7161		da 18 a 30	over 18 to 30	über 18 bis 30	-40 - 73	0 - 13
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 - 89	0 - 16

2 TAGLI rivestite Futura EXTRA LUNGHE
2 FLUTE Futura coating EXTRA LONG LENGTH
2 SCHNEIDEN Futura Beschichtung
EXTRA LANG



HSS Co8 DIN 844 N $\approx 30^\circ$ FLUTE 2 DIN 1835B P. 191



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PR2L-02,50XT	2.5	6	8	56
PR2L-03,00XT	3.0	6	8	56
PR2L-04,00XT	4.0	6	11	63
PR2L-05,00XT	5.0	6	13	68
PR2L-06,00XT	6.0	6	13	68
PR2L-07,00XT	7.0	10	16	80
PR2L-08,00XT	8.0	10	19	88
PR2L-10,00XT	10.0	10	22	95
PR2L-12,00XT	12.0	12	26	110
PR2L-14,00XT	14.0	12	26	110
PR2L-16,00XT	16.0	16	32	123
PR2L-18,00XT	18.0	16	32	123
PR2L-20,00XT	20.0	20	38	141
PR2L-22,00XT	22.0	20	38	141
PR2L-25,00XT	25.0	25	45	166
PR2L-30,00XT	30.0	25	45	166

				e8		h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14	-28	0 - 6
		da 3 a 6	over 3 to 6	über 3 bis 6	-20	-38	0 - 8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25	-47	0 - 9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32	-59	0 - 11
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 18 a 30	over 18 to 30	über 18 bis 30	-40	-73	0 - 13
		da 30 a 50	over 30 to 50	über 30 bis 50	-50	-89	0 - 16

3 TAGLI CORTE 3 FLUTE SHORT LENGTH 3 SCHNEIDEN KURZ



HSS Co8 DIN 844 N $\approx 30^\circ$ FLUTE 3 DIN 1835B P. 193-194



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR3-01,00	1.0	6	3	47
PR3-01,50	1.5	6	7	51
PR3-02,00	2.0	6	7	51
PR3-02,50	2.5	6	8	52
PR3-03,00	3.0	6	8	52
PR3-04,00	4.0	6	11	55
PR3-05,00	5.0	6	13	57
PR3-06,00	6.0	6	13	57
PR3-08,00	8.0	10	19	69
PR3-10,00	10.0	10	22	72
PR3-12,00	12.0	12	26	83
PR3-14,00	14.0	12	26	83
PR3-16,00	16.0	16	32	92
PR3-18,00	18.0	16	32	92
PR3-20,00	20.0	20	38	104
PR3-22,00	22.0	20	38	104
PR3-25,00	25.0	25	45	121

				e8	h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6
		da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 - 8
		da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 - 9
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 - 11
		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 - 13
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89	0 - 16
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm					



3 TAGLI rivestite Futura CORTE

3 FLUTE Futura coating SHORT LENGTH

3 SCHNEIDEN Futura Beschichtung KURZ



HSS Co8 DIN 844 N $\approx 30^\circ$ FLUTE 3 DIN 1835B P. 195-196



Unit: mm

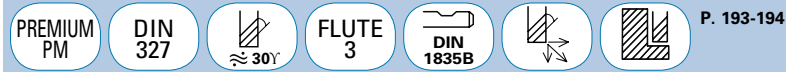
CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR3-01,00XT	1.0	6	3	47
PR3-01,50XT	1.5	6	7	51
PR3-02,00XT	2.0	6	7	51
PR3-02,50XT	2.5	6	8	52
PR3-03,00XT	3.0	6	8	52
PR3-04,00XT	4.0	6	11	55
PR3-05,00XT	5.0	6	13	57
PR3-06,00XT	6.0	6	13	57
PR3-08,00XT	8.0	10	19	69
PR3-10,00XT	10.0	10	22	72
PR3-12,00XT	12.0	12	26	83
PR3-14,00XT	14.0	12	26	83
PR3-16,00XT	16.0	16	32	92
PR3-18,00XT	18.0	16	32	92
PR3-20,00XT	20.0	20	38	104
PR3-22,00XT	22.0	20	38	104
PR3-25,00XT	25.0	25	45	121

			e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3 from 1 to 3 von 1 bis 3	-14 -28	0 - 6
	Nennmaßbereich in mm	da 3 a 6 over 3 to 6 über 3 bis 6	-20 -38	0 - 8
		da 6 a 10 over 6 to 10 über 6 bis 10	-25 -47	0 - 9
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm	da 10 a 18 over 10 to 18 über 10 bis 18	-32 -59	0 - 11
		da 18 a 30 over 18 to 30 über 18 bis 30	-40 -73	0 - 13
		da 30 a 50 over 30 to 50 über 30 bis 50	-50 -89	0 - 16
TOLERANZEN NACH DIN 7160 & 7161				

3 TAGLI ASP CORTE 3 FLUTE STUB LENGTH END MILL 3 SCHNEIDEN FRÄSER, EXTRA KURZ



- *Ottimo bilanciamento. Il design minimizza flessioni e vibrazioni.*
Well balanced web design to minimize deflection and chattering.
- *Le frese 3 tagli hanno un vantaggio su frese a 2 e 4 tagli.*
3 flute design possess the advantage of 2 flute and 4 flute end mill.



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA3-01,00	1	6	2.5	47
PRA3-02,00	2	6	4	48
PRA3-03,00	3	6	5	49
PRA3-04,00	4	6	7	51
PRA3-05,00	5	6	8	52
PRA3-06,00	6	6	8	52
PRA3-07,00	7	10	10	60
PRA3-08,00	8	10	11	61
PRA3-09,00	9	10	11	61
PRA3-10,00	10	10	13	63
PRA3-12,00	12	12	16	73
PRA3-14,00	14	12	16	73
PRA3-16,00	16	16	19	79
PRA3-18,00	18	16	19	79
PRA3-20,00	20	20	22	88
PRA3-22,00	22	20	22	88
PRA3-25,00	25	25	26	102

					e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6
		da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 - 8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 - 9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 - 11
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 - 13



3 TAGLI ASP rivestite NANO CORTE

3 FLUTE NANO coating STUB LENGTH END MILL

3 SCHNEIDEN NANO Berschichtung FRÄSER, EXTRA KURZ



- Ottimo bilanciamento. Il design minimizza flessioni e vibrazioni.
Well balanced web design to minimize deflection and chattering.
- Le frese 3 tagli hanno un vantaggio su frese a 2 e 4 tagli.
3 flute design possess the advantage of 2 flute and 4 flute end mill.
- Il nuovo rivestimento NANO è indicato per lavorazioni ad alta velocità (HSC).
New developed NANO Coating suitable for high speed cutting.

PREMIUM PM DIN 327 FLUTE 3 DIN 1835B P. 197-198

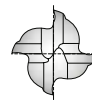
Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA3-01,00NC	1	6	2.5	47
PRA3-02,00NC	2	6	4	48
PRA3-03,00NC	3	6	5	49
PRA3-04,00NC	4	6	7	51
PRA3-05,00NC	5	6	8	52
PRA3-06,00NC	6	6	8	52
PRA3-07,00NC	7	10	10	60
PRA3-08,00NC	8	10	11	61
PRA3-09,00NC	9	10	11	61
PRA3-10,00NC	10	10	13	63
PRA3-12,00NC	12	12	16	73
PRA3-14,00NC	14	12	16	73
PRA3-16,00NC	16	16	19	79
PRA3-18,00NC	18	16	19	79
PRA3-20,00NC	20	20	22	88
PRA3-22,00NC	22	20	22	88
PRA3-25,00NC	25	25	26	102

			e8		h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 -6
	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 -8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 -9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 -11
TOLERANZEN NACH DIN 7160 & 7161		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 -13



4 TAGLI CORTE 4 FLUTE SHORT LENGTH 4 SCHNEIDEN KURZ



HSS Co8
DIN 844
N
 $\approx 30^\circ$
FLUTE 4 & 6
DIN 1835B

P. 199

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4-02,00	2.0	6	7	51	4
PR4-03,00	3.0	6	8	52	4
PR4-04,00	4.0	6	11	55	4
PR4-05,00	5.0	6	13	57	4
PR4-06,00	6.0	6	13	57	4
PR4-07,00	7.0	10	16	66	4
PR4-08,00	8.0	10	19	69	4
PR4-09,00	9.0	10	19	69	4
PR4-10,00	10.0	10	22	72	4
PR4-11,00	11.0	12	22	79	4
PR4-12,00	12.0	12	26	83	4
PR4-13,00	13.0	12	26	83	4
PR4-14,00	14.0	12	26	83	4
PR4-15,00	15.0	12	26	83	4
PR4-16,00	16.0	16	32	92	4
PR4-18,00	18.0	16	32	92	4
PR4-20,00	20.0	16	38	98	4
PR4-22,00	22.0	20	38	104	4
PR4-25,00	25.0	25	45	121	4
PR4-26,00	26.0	25	45	121	6
PR4-28,00	28.0	25	45	121	6
PR4-30,00	30.0	25	45	121	6

Tolleranza / Tolerance / Toleranzen	
DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
+0.040 - 6	h6

4 TAGLI rivestite Futura CORTE
4 FLUTE Futura coating SHORT LENGTH
4 SCHNEIDEN Futura Beschichtung KURZ



HSS Co8
DIN 844
N
≈ 30°
FLUTE 4 & 6
DIN 1835B
P. 200

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4-02,00XT	2.0	6	7	51	4
PR4-03,00XT	3.0	6	8	52	4
PR4-04,00XT	4.0	6	11	55	4
PR4-05,00XT	5.0	6	13	57	4
PR4-06,00XT	6.0	6	13	57	4
PR4-07,00XT	7.0	10	16	66	4
PR4-08,00XT	8.0	10	19	69	4
PR4-09,00XT	9.0	10	19	69	4
PR4-10,00XT	10.0	10	22	72	4
PR4-11,00XT	11.0	12	22	79	4
PR4-12,00XT	12.0	12	26	83	4
PR4-13,00XT	13.0	12	26	83	4
PR4-14,00XT	14.0	12	26	83	4
PR4-15,00XT	15.0	12	26	83	4
PR4-16,00XT	16.0	16	32	92	4
PR4-18,00XT	18.0	16	32	92	4
PR4-20,00XT	20.0	16	38	98	4
PR4-22,00XT	22.0	20	38	104	4
PR4-25,00XT	25.0	25	45	121	4
PR4-26,00XT	26.0	25	45	121	6
PR4-28,00XT	28.0	25	45	121	6
PR4-30,00XT	30.0	25	45	121	6

Tolleranza / Tolerance / Toleranzen	
DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
+0.040 - 6	h6

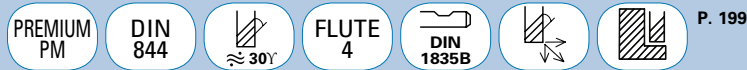
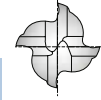


4 TAGLI ASP CORTE

4 FLUTE SHORT LENGTH END MILL

4 SCHNEIDEN FRÄSER KURZ

- *Raccomandata per fresature di tasche, fresature CAM, prestampisti e per cave.*
Recommended for pocketing, tracer milling, cam milling, die sinking and slotting.
- *Per lavorazioni ad alta velocità (HSC) su materiali di difficile truciolabilità.*
Designed for high speed cutting of difficult - to - cut materials.



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PRA4-01,00	1.0	6	3	49
PRA4-02,00	2.0	6	7	51
PRA4-03,00	3.0	6	8	52
PRA4-04,00	4.0	6	11	55
PRA4-05,00	5.0	6	13	57
PRA4-06,00	6.0	6	13	57
PRA4-07,00	7.0	10	16	66
PRA4-08,00	8.0	10	19	69
PRA4-09,00	9.0	10	19	69
PRA4-10,00	10.0	10	22	72
PRA4-12,00	12.0	12	26	83
PRA4-14,00	14.0	12	26	83
PRA4-16,00	16.0	16	32	92
PRA4-18,00	18.0	16	32	92
PRA4-20,00	20.0	20	38	104
PRA4-22,00	22.0	20	38	104
PRA4-25,00	25.0	25	45	121

Tolleranza / Tolerance / Toleranzen

DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
+0.03 0	h6

4 TAGLI ASP rivestite NANO CORTE 4 FLUTE NANO coating SHORT LENGTH END MILL 4 SCHNEIDEN NANO Beschichtung FRÄSER, KURZ



- *Raccomandata per fresature di tasche, fresature CAM, prestampisti e per cave.*
Recommended for pocketing, tracer milling, cam milling, die sinking and slotting.
- *Per lavorazioni ad alta velocità (HSC) su materiali di difficile truciolabilità.*
Designed for high speed cutting of difficult - to - cut materials.
- *Il nuovo rivestimento NANO è indicato per lavorazioni ad alta velocità (HSC).*
New developed NANO Coating suitable for high speed cutting.

P. 201

Unit: mm

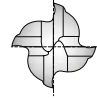
CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA4-01,00NC	1.0	6	3	49
PRA4-02,00NC	2.0	6	7	51
PRA4-03,00NC	3.0	6	8	52
PRA4-04,00NC	4.0	6	11	55
PRA4-05,00NC	5.0	6	13	57
PRA4-06,00NC	6.0	6	13	57
PRA4-07,00NC	7.0	10	16	66
PRA4-08,00NC	8.0	10	19	69
PRA4-09,00NC	9.0	10	19	69
PRA4-10,00NC	10.0	10	22	72
PRA4-12,00NC	12.0	12	26	83
PRA4-14,00NC	14.0	12	26	83
PRA4-16,00NC	16.0	16	32	92
PRA4-18,00NC	18.0	16	32	92
PRA4-20,00NC	20.0	20	38	104
PRA4-22,00NC	22.0	20	38	104
PRA4-25,00NC	25.0	25	45	121

Tolleranza / Tolerance / Toleranzen	
DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
+0.03 0	h6

4 TAGLI LUNGHE

4 FLUTE LONG LENGTH

4 SCHNEIDEN LANG



HSS Co8
DIN 844
N
30°
FLUTE 4 & 6
DIN 1835B
P. 199

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4L-02,00	2.0	6	10	54	4
PR4L-02,50	2.5	6	12	56	4
PR4L-03,00	3.0	6	12	56	4
PR4L-04,00	4.0	6	19	63	4
PR4L-05,00	5.0	6	24	68	4
PR4L-06,00	6.0	6	24	68	4
PR4L-08,00	8.0	10	38	88	4
PR4L-10,00	10.0	10	45	95	4
PR4L-12,00	12.0	12	53	110	4
PR4L-14,00	14.0	12	53	110	4
PR4L-16,00	16.0	16	63	123	4
PR4L-18,00	18.0	16	63	123	4
PR4L-20,00	20.0	20	75	141	4
PR4L-22,00	22.0	20	75	141	6
PR4L-25,00	25.0	25	90	166	6
PR4L-30,00	30.0	25	90	166	6

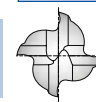
Tolleranza / Tolerance / Toleranzen				
DIAMETRO FRESA / MILL DIA.		DIAMETRO GAMBO / SHANK DIA.		
∅2.0-∅6.0	∅6.5-	h6		
+0.040 - 0	+0.050 - 0			



4 TAGLI rivestite Futura LUNGHE 4 FLUTE Futura coating LONG LENGTH 4 SCHNEIDEN Futura Beschichtung LANG



HSS Co8 DIN 844 N ≈ 30° FLUTE 4 & 6 DIN 1835B P. 200



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4L-02,00XT	2.0	6	10	54	4
PR4L-02,50XT	2.5	6	12	56	4
PR4L-03,00XT	3.0	6	12	56	4
PR4L-04,00XT	4.0	6	19	63	4
PR4L-05,00XT	5.0	6	24	68	4
PR4L-06,00XT	6.0	6	24	68	4
PR4L-08,00XT	8.0	10	38	88	4
PR4L-10,00XT	10.0	10	45	95	4
PR4L-12,00XT	12.0	12	53	110	4
PR4L-14,00XT	14.0	12	53	110	4
PR4L-16,00XT	16.0	16	63	123	4
PR4L-18,00XT	18.0	16	63	123	4
PR4L-20,00XT	20.0	20	75	141	4
PR4L-22,00XT	22.0	20	75	141	6
PR4L-25,00XT	25.0	25	90	166	6
PR4L-30,00XT	30.0	25	90	166	6

Tolleranza / Tolerance / Toleranzen			
DIAMETRO FRESA / MILL DIA.		DIAMETRO GAMBO / SHANK DIA.	
Ø2.0~Ø6.0		Ø6.5~	
+0.040	- 0	+0.050	- 0
		h6	

3 TAGLI a gettare **LUNGHE**

3 FLUTE throw away **LONG LENGTH**

3 SCHNEIDEN Einwegfräser **LANG**



HSS Co8
-
N
30°
FLUTE 3
DIN 1835B
P. 193-194



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR3G-01,00	1.0	6	2	34
PR3G-01,50	1.5	6	4	35
PR3G-02,00	2.0	6	7	38
PR3G-02,50	2.5	6	8	39
PR3G-03,00	3.0	6	8	39
PR3G-03,50	3.5	6	10	41
PR3G-04,00	4.0	6	11	42
PR3G-04,50	4.5	6	11	42
PR3G-05,00	5.0	6	13	44
PR3G-05,50	5.5	6	13	44
PR3G-06,00	6.0	6	13	44

				e8		h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm			da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28 0 -6
	Nennmaßbereich in mm			da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38 0 -8
	Nominal-Diameter in mm			da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47 0 -9
TOLERANCES ACCORDING TO DIN 7160 & 7161				da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59 0 -11
				da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73 0 -13
TOLERANZEN NACH DIN 7160 & 7161				da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89 0 -16



3 TAGLI rivestite Futura a gettare LUNGHE
3 FLUTE Futura coating throw away
LONG LENGTH
3 SCHNEIDEN Futura Beschichtung
Einwegfräser LANG



HSS Co8
-
N
 $\approx 30^\circ$
FLUTE 3
DIN 1835B
 \leftarrow
 \rightarrow
P. 195-196



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PR3G-01,00XT	1.0	6	2	34
PR3G-01,50XT	1.5	6	4	35
PR3G-02,00XT	2.0	6	7	38
PR3G-02,50XT	2.5	6	8	39
PR3G-03,00XT	3.0	6	8	39
PR3G-03,50XT	3.5	6	10	41
PR3G-04,00XT	4.0	6	11	42
PR3G-04,50XT	4.5	6	11	42
PR3G-05,00XT	5.0	6	13	44
PR3G-05,50XT	5.5	6	13	44
PR3G-06,00XT	6.0	6	13	44

				e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28 0 -6
	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38 0 -8
	Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47 0 -9
TOLERANCES ACCORDING TO DIN 7160 & 7161		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59 0 -11
		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73 0 -13
TOLERANZEN NACH DIN 7160 & 7161		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89 0 -16



2 TAGLI semisferiche CORTE

2 FLUTE ball nose SHORT LENGTH

2 SCHNEIDEN Stirnradius KURZ



HSS Co8	DIN 327	N	 $\approx 30^\circ$	FLUTE 2	DIN 1835B			P. 202
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Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR2S-02,00	2.0	6	4	48
PR2S-02,50	2.5	6	5	49
PR2S-03,00	3.0	6	5	49
PR2S-03,50	3.5	6	6	50
PR2S-04,00	4.0	6	7	51
PR2S-05,00	5.0	6	8	52
PR2S-06,00	6.0	6	8	52
PR2S-07,00	7.0	10	10	60
PR2S-08,00	8.0	10	11	61
PR2S-09,00	9.0	10	11	61
PR2S-10,00	10.0	10	13	63
PR2S-11,00	11.0	12	13	70
PR2S-12,00	12.0	12	16	73
PR2S-13,00	13.0	12	16	73
PR2S-14,00	14.0	12	16	73
PR2S-15,00	15.0	12	16	73
PR2S-16,00	16.0	16	19	79
PR2S-18,00	18.0	16	19	79
PR2S-20,00	20.0	16	22	82
PR2S-22,00	22.0	20	22	98
PR2S-25,00	25.0	25	26	102

TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	e8		h6	
					-14	-28	0	-6
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20	-38	0	-8
		da 6 a 10	over 6 to 10	über 6 bis 10	-25	-47	0	-9
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 10 a 18	over 10 to 18	über 10 bis 18	-32	-59	0	-11
		da 18 a 30	over 18 to 30	über 18 bis 30	-40	-73	0	-13
		da 30 a 50	over 30 to 50	über 30 bis 50	-50	-89	0	-16

2 TAGLI rivestite Futura semisferiche CORTE
2 FLUTE Futura coating ball nose
SHORT LENGTH
2 SCHNEIDEN Futura Beschichtung
Stimradius KURZ



HSS Co8
DIN 327
N
≈ 30°
FLUTE 2
DIN 1835B
P. 203



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR2S-02,00XT	2.0	6	4	48
PR2S-02,50XT	2.5	6	5	49
PR2S-03,00XT	3.0	6	5	49
PR2S-03,50XT	3.5	6	6	50
PR2S-04,00XT	4.0	6	7	51
PR2S-05,00XT	5.0	6	8	52
PR2S-06,00XT	6.0	6	8	52
PR2S-07,00XT	7.0	10	10	60
PR2S-08,00XT	8.0	10	11	61
PR2S-09,00XT	9.0	10	11	61
PR2S-10,00XT	10.0	10	13	63
PR2S-11,00XT	11.0	12	13	70
PR2S-12,00XT	12.0	12	16	73
PR2S-13,00XT	13.0	12	16	73
PR2S-14,00XT	14.0	12	16	73
PR2S-15,00XT	15.0	12	16	73
PR2S-16,00XT	16.0	16	19	79
PR2S-18,00XT	18.0	16	19	79
PR2S-20,00XT	20.0	16	22	82
PR2S-22,00XT	22.0	20	22	98
PR2S-25,00XT	25.0	25	26	102

				e8		h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6	
		da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 - 8	
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 - 9	
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 - 11	
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 - 13	
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89	0 - 16	

2 TAGLI ASP semisferiche **CORTE**

2 FLUTE ball nose end mill **SHORT LENGTH**

2 SCHNEIDEN Stirnradius **KURZ**



- *Elevate performance su tutti i materiali di acciaio al carbonio, acciaio inox all'alluminio.*
Excellent performance on wide materials from carbon steels and stainless steels to aluminium.
- *Studiata per coperture, cave e contorniture.*
Designed for milling of radius bottom slots, fillets and special contours.

PREMIUM PM	DIN 327	30°	FLUTE 2	DIN 1835B			P. 202
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Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA2S-01,00	1	6	2.5	47
PRA2S-02,00	2	6	4	48
PRA2S-03,00	3	6	5	49
PRA2S-04,00	4	6	7	51
PRA2S-05,00	5	6	8	52
PRA2S-06,00	6	6	8	52
PRA2S-07,00	7	10	10	60
PRA2S-08,00	8	10	11	61
PRA2S-09,00	9	10	11	61
PRA2S-10,00	10	10	13	63
PRA2S-12,00	12	12	16	73
PRA2S-14,00	14	12	16	73
PRA2S-16,00	16	16	19	79
PRA2S-18,00	18	16	19	79
PRA2S-20,00	20	20	22	88
PRA2S-22,00	22	20	22	88
PRA2S-25,00	25	25	26	102

Tolleranza / Tolerance / Toleranzen	
DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
0 - 0.03	h6

2 TAGLI ASP rivestite NANO semisferiche **CORTE** 2 FLUTE NANO coating ball nose end mill **SHORT LENGTH** 2 SCHNEIDEN NANO Beschichtung Stirnradius **KURZ**



- Elevate performance su tutti i materiali di acciaio al carbonio, acciaio inox all'alluminio.
 Excellent performance on wide materials from carbon steels and stainless steels to aluminium.
- Studiata per coperture, cave e contorniture.
 Designed for milling of radius bottom slots, fillets and special contours.
- Il nuovo rivestimento NANO è indicato per lavorazioni ad alta velocità (HSC).
 New developed NANO Coating suitable for high speed cutting.

PREMIUM PM	DIN 327		FLUTE 2				P. 204
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Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PRA2S-01,00NC	1	6	2.5	47
PRA2S-02,00NC	2	6	4	48
PRA2S-03,00NC	3	6	5	49
PRA2S-04,00NC	4	6	7	51
PRA2S-05,00NC	5	6	8	52
PRA2S-06,00NC	6	6	8	52
PRA2S-07,00NC	7	10	10	60
PRA2S-08,00NC	8	10	11	61
PRA2S-09,00NC	9	10	11	61
PRA2S-10,00NC	10	10	13	63
PRA2S-12,00NC	12	12	16	73
PRA2S-14,00NC	14	12	16	73
PRA2S-16,00NC	16	16	19	79
PRA2S-18,00NC	18	16	19	79
PRA2S-20,00NC	20	20	22	88
PRA2S-22,00NC	22	20	22	88
PRA2S-25,00NC	25	25	26	102

Tolleranza / Tolerance / Toleranzen	
DIAMETRO FRESA / MILL DIA.	DIAMETRO GAMBO / SHANK DIA.
0 - 0.03	h6

2 TAGLI semisferiche **LUNGHE** 2 FLUTE ball nose **LONG LENGTH** 2 SCHNEIDEN Stirnradius **LANG**



HSS Co8 DIN 1889 N $\approx 30^\circ$ FLUTE 2 DIN 1835B P. 202



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH
PR2SL-02,00	2.0	6	7	54
PR2SL-03,00	3.0	6	8	56
PR2SL-04,00	4.0	6	11	63
PR2SL-05,00	5.0	6	13	68
PR2SL-06,00	6.0	6	13	68
PR2SL-07,00	7.0	10	16	80
PR2SL-08,00	8.0	10	19	88
PR2SL-09,00	9.0	10	19	88
PR2SL-10,00	10.0	10	22	95
PR2SL-12,00	12.0	12	26	110
PR2SL-14,00	14.0	12	26	110
PR2SL-16,00	16.0	16	32	123
PR2SL-18,00	18.0	16	32	123
PR2SL-20,00	20.0	20	38	141
PR2SL-25,00	25.0	25	45	166

					e8		h6		
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm		da 1 a 3	from 1 to 3	von 1 bis 3	-14	-28	0	-6
	Nennmaßbereich in mm		da 3 a 6	over 3 to 6	über 3 bis 6	-20	-38	0	-8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm		da 6 a 10	over 6 to 10	über 6 bis 10	-25	-47	0	-9
			da 10 a 18	over 10 to 18	über 10 bis 18	-32	-59	0	-11
TOLERANZEN NACH DIN 7160 & 7161			da 18 a 30	over 18 to 30	über 18 bis 30	-40	-73	0	-13
			da 30 a 50	over 30 to 50	über 30 bis 50	-50	-89	0	-16

2 TAGLI rivestite Futura semisferiche **LUNGHE** 2 FLUTE Futura coating ball nose **LONG LENGTH** 2 SCHNEIDEN Futura Beschichtung Stirnradius **LANG**



HSS Co8	DIN 1889	N	≈ 30°	FLUTE 2	DIN 1835B			P. 203
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Unit: mm

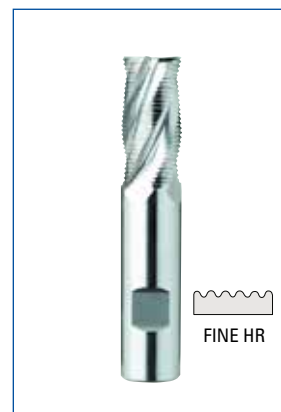
CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH
PR2SL-02,00XT	2.0	6	7	54
PR2SL-03,00XT	3.0	6	8	56
PR2SL-04,00XT	4.0	6	11	63
PR2SL-05,00XT	5.0	6	13	68
PR2SL-06,00XT	6.0	6	13	68
PR2SL-07,00XT	7.0	10	16	80
PR2SL-08,00XT	8.0	10	19	88
PR2SL-09,00XT	9.0	10	19	88
PR2SL-10,00XT	10.0	10	22	95
PR2SL-12,00XT	12.0	12	26	110
PR2SL-14,00XT	14.0	12	26	110
PR2SL-16,00XT	16.0	16	32	123
PR2SL-18,00XT	18.0	16	32	123
PR2SL-20,00XT	20.0	20	38	141
PR2SL-25,00XT	25.0	25	45	166

					e8	h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 - 6	
		da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 - 8	
		da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 - 9	
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 - 11	
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 - 13	
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89	0 - 16	
		TOLERANZEN NACH DIN 7160 & 7161					

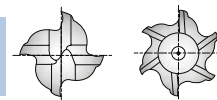
4 TAGLI sgrossare **CORTE**

4 FLUTE roughing **SHORT LENGTH**

4 SCHNEIDEN Schruppfräser **KURZ**



HSS Co8
DIN 844
HR
30°
FLUTE 3-6
DIN 1835B
-Ø20
Ø22
P. 205



Fino a Ø 20 / Up to Ø 20 Oltre Ø 20 / Over Ø 20

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4SG-06,00	6.0	6	13	57	3
PR4SG-07,00	7.0	10	16	66	3
PR4SG-08,00	8.0	10	19	69	3
PR4SG-09,00	9.0	10	19	69	3
PR4SG-10,00	10.0	10	22	72	4
PR4SG-12,00	12.0	12	26	83	4
PR4SG-14,00	14.0	12	26	83	4
PR4SG-16,00	16.0	16	32	92	4
PR4SG-18,00	18.0	16	32	92	4
PR4SG-20,00	20.0	20	38	104	4
PR4SG-25,00	25.0	25	45	121	5
PR4SG-30,00	30.0	25	45	121	6

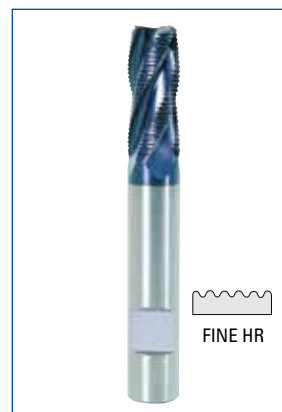
				e8		h6		
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm			da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28	0 -6
	Nennmaßbereich in mm			da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38	0 -8
	Nominal-Diameter in mm			da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47	0 -9
				da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59	0 -11
TOLERANCES ACCORDING TO DIN 7160 & 7161				da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73	0 -13
				da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89	0 -16



4 TAGLI rivestite Futura sgrossare CORTE

4 FLUTE Futura coating roughing SHORT LENGTH

4 SCHNEIDEN Futura Beschichtung Schruppfräser KURZ



HSS
Co8

DIN
844

HR

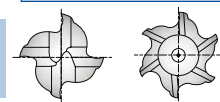
FLUTE
3-6

DIN
1835B

-0.20µ

-0.22µ

P. 206



Fino a Ø 20 Oltre Ø 20
Up to Ø 20 Over Ø 20

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4SG-06,00XT	6.0	6	13	57	3
PR4SG-07,00XT	7.0	10	16	66	3
PR4SG-08,00XT	8.0	10	19	69	3
PR4SG-09,00XT	9.0	10	19	69	3
PR4SG-10,00XT	10.0	10	22	72	4
PR4SG-12,00XT	12.0	12	26	83	4
PR4SG-14,00XT	14.0	12	26	83	4
PR4SG-16,00XT	16.0	16	32	92	4
PR4SG-18,00XT	18.0	16	32	92	4
PR4SG-20,00XT	20.0	20	38	104	4
PR4SG-25,00XT	25.0	25	45	121	5
PR4SG-30,00XT	30.0	25	45	121	6

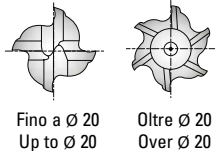
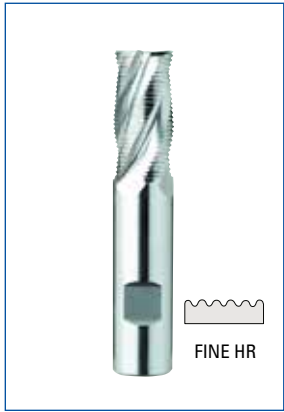
				e8	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	-14 -28 0 -6
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	-20 -38 0 -8
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 6 a 10	over 6 to 10	über 6 bis 10	-25 -47 0 -9
		da 10 a 18	over 10 to 18	über 10 bis 18	-32 -59 0 -11
		da 18 a 30	over 18 to 30	über 18 bis 30	-40 -73 0 -13
		da 30 a 50	over 30 to 50	über 30 bis 50	-50 -89 0 -16

4 TAGLI ASP sgrossare **CORTE**

4 FLUTE roughing end mill **SHORT LENGTH**

4 SCHNEIDEN Schruppfräser **KURZ**

- Studiata per sgrossare con alti avanzamenti.
Suitable for high-feed roughing milling.
- Disegnata per lavorare acciai al carbonio, acciai legati, acciai inox.
Designed to machine carbon steels, alloyed steels, stainless steels
- In molti casi fornisce eccellenti superfici.
Providing excellent finished surfaces in many cases.



Fino a Ø 20
Up to Ø 20

Oltre Ø 20
Over Ø 20

Unit: mm

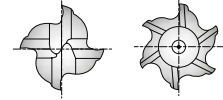
CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	N. TAGLIANTI NR. OF FLUTE
PRA4SG-06,00	6.0	6	13	57	3
PRA4SG-07,00	7.0	10	16	66	3
PRA4SG-08,00	8.0	10	19	69	3
PRA4SG-09,00	9.0	10	19	69	3
PRA4SG-10,00	10.0	10	22	72	4
PRA4SG-12,00	12.0	12	26	83	4
PRA4SG-14,00	14.0	12	26	83	4
PRA4SG-16,00	16.0	16	32	92	4
PRA4SG-18,00	18.0	16	32	92	4
PRA4SG-20,00	20.0	20	38	104	4
PRA4SG-22,00	22.0	20	38	104	5
PRA4SG-25,00	25.0	25	45	121	5

		js12	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3 from 1 to 3	da 1 bis 3 von 1 bis 3
	TOLERANCES ACCORDING TO DIN 7160 & 7161	da 3 a 6 over 3 to 6	über 3 bis 6 über 3 bis 6
		da 6 a 10 over 6 to 10	über 6 bis 10 über 6 bis 10
TOLERANZEN NACH DIN 7160 & 7161	Nennmaßbereich in mm Nominal-Diameter in mm	da 10 a 18 over 10 to 18	über 10 bis 18 über 10 bis 18
		da 18 a 30 over 18 to 30	über 18 bis 30 über 18 bis 30
		da 30 a 50 over 30 to 50	über 30 bis 50 über 30 bis 50

4 TAGLI ASP rivestite NANO sgrossare CORTE

4 FLUTE NANO coating roughing end mill SHORT LENGTH

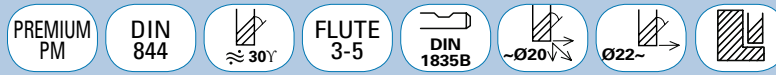
4 SCHNEIDEN NANO Beschichtung Schruppfräser KURZ



Fino a \varnothing 20
Up to \varnothing 20

Oltre \varnothing 20
Over \varnothing 20

- Studiata per sgrossare con alti avanzamenti. • Suitable for high-feed roughing milling.
- Disegnata per lavorare acciai al carbonio, acciai legati, acciai inox. Designed to machine carbon steels, alloyed steels, stainless steels
- In molti casi fornisce eccellenti superfici. • Providing excellent finished surfaces in many cases.
- Il nuovo rivestimento NANO è indicato per lavorazioni ad alta velocità (HSC).
- New developed NANO Coating suitable for high speed cutting.



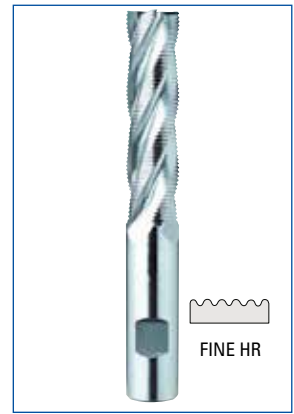
P. 207

Unit: mm

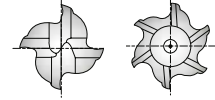
CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	N. TAGLIANTI NR. OF FLUTE
PRA4SG-06,00NC	6.0	6	13	57	3
PRA4SG-07,00NC	7.0	10	16	66	3
PRA4SG-08,00NC	8.0	10	19	69	3
PRA4SG-09,00NC	9.0	10	19	69	3
PRA4SG-10,00NC	10.0	10	22	72	4
PRA4SG-12,00NC	12.0	12	26	83	4
PRA4SG-14,00NC	14.0	12	26	83	4
PRA4SG-16,00NC	16.0	16	32	92	4
PRA4SG-18,00NC	18.0	16	32	92	4
PRA4SG-20,00NC	20.0	20	38	104	4
PRA4SG-22,00NC	22.0	20	38	104	5
PRA4SG-25,00NC	25.0	25	45	121	5

				js12	h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	± 50	0 - 6
		da 3 a 6	over 3 to 6	über 3 bis 6	± 60	0 - 8
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	da 6 a 10	over 6 to 10	über 6 bis 10	± 75	0 - 9
		da 10 a 18	over 10 to 18	über 10 bis 18	± 90	0 - 11
TOLERANZEN NACH DIN 7160 & 7161	Nominal-Diameter in mm	da 18 a 30	over 18 to 30	über 18 bis 30	± 105	0 - 13
		da 30 a 50	over 30 to 50	über 30 bis 50	± 125	0 - 16

4 TAGLI sgrossare LUNGHE
4 FLUTE roughing LONG LENGTH
4 SCHNEIDEN Schruppfräser LANG



HSS Co8
DIN 844
HR
≈ 30°
FLUTE 3-6
DIN 1835B
~Ø20°
Ø22~
P. 205



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	N. TAGLIENTI NR. OF FLUTE
PR4SGL-06,00	6.0	6	24	68	3
PR4SGL-08,00	8.0	10	38	88	3
PR4SGL-10,00	10.0	10	45	95	4
PR4SGL-12,00	12.0	12	53	110	4
PR4SGL-14,00	14.0	12	53	110	4
PR4SGL-16,00	16.0	16	63	123	4
PR4SGL-18,00	18.0	16	63	123	4
PR4SGL-20,00	20.0	20	75	141	4
PR4SGL-25,00	25.0	25	90	166	5
PR4SGL-30,00	30.0	25	90	166	6

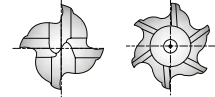
				js12	h6	
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3	from 1 to 3	von 1 bis 3	± 50	0 - 6
	Nennmaßbereich in mm	da 3 a 6	over 3 to 6	über 3 bis 6	± 60	0 - 8
		da 6 a 10	over 6 to 10	über 6 bis 10	± 75	0 - 9
TOLERANCES ACCORDING TO DIN 7160 & 7161	Nominal-Diameter in mm	da 10 a 18	over 10 to 18	über 10 bis 18	± 90	0 - 11
		da 18 a 30	over 18 to 30	über 18 bis 30	± 105	0 - 13
		da 30 a 50	over 30 to 50	über 30 bis 50	± 125	0 - 16
TOLERANZEN NACH DIN 7160 & 7161						

4 TAGLI rivestite Futura sgrossare **LUNGHE**
4 FLUTE Futura coating roughing **LONG LENGTH**
4 SCHNEIDEN Futura Beschichtung
Schrupfräser **LANG**



FINE HR

HSS Co8
DIN 844
HR
≈ 30°
FLUTE 3-6
DIN 1835B
~Ø20
Ø22-
P. 206



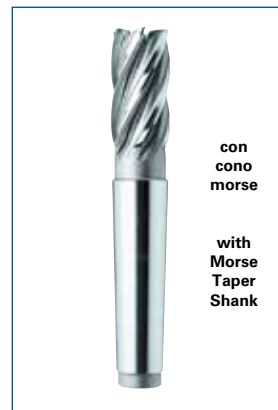
Fino a Ø 20 Up to Ø 20
 Oltre Ø 20 Over Ø 20

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	N. TAGLIANTI NR. OF FLUTE
PR4SGL-06,00XT	6.0	6	24	68	3
PR4SGL-08,00XT	8.0	10	38	88	3
PR4SGL-10,00XT	10.0	10	45	95	4
PR4SGL-12,00XT	12.0	12	53	110	4
PR4SGL-14,00XT	14.0	12	53	110	4
PR4SGL-16,00XT	16.0	16	63	123	4
PR4SGL-18,00XT	18.0	16	63	123	4
PR4SGL-20,00XT	20.0	20	75	141	4
PR4SGL-25,00XT	25.0	25	90	166	5
PR4SGL-30,00XT	30.0	25	90	166	6



			js12	h6
TOLLERANZE SECONDO NORME DIN 7160 & 7161	Diametro Nominale in mm	da 1 a 3 from 1 to 3 von 1 bis 3	± 50	0 - 6
	TOLERANCES ACCORDING TO DIN 7160 & 7161	Nennmaßbereich in mm	± 60	0 - 8
TOLERANZEN NACH DIN 7160 & 7161		Nominal-Diameter in mm	± 75	0 - 9
	da 10 a 18 over 10 to 18 über 10 bis 18	± 90	0 - 11	
	da 18 a 30 over 18 to 30 über 18 bis 30	± 105	0 - 13	
		da 30 a 50 over 30 to 50 über 30 bis 50	± 125	0 - 16

4 TAGLI CORTE
4 FLUTE SHORT LENGTH
4 SCHNEIDEN KURZ



con
cono
morse

with
Morse
Taper
Shank

HSS Co8 DIN 845 N  $\approx 30^\circ$ FLUTE 4-8  DIN 228A   P. 199



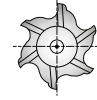
Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	LUNGHEZZA TAGLIANTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	CONO MORSE N. MORSE TAPER NR.	N. TAGLIANTI NR. OF FLUTE
PR4CM-16,00	16	32	117	2	4
PR4CM-20,00	20	38	123	2	4
PR4CM-25,00	25	45	147	3	6
PR4CM-30,00	30	45	147	3	6
PR4CM-32,00	32	53	178	4	6
PR4CM-35,00	35	53	178	4	6
PR4CM-40,00	40	63	188	4	6
PR4CM-45,00	45	63	188	4	8
PR4CM-50,00	50	75	233	5	8

Tolleranza / Tolerance / Toleranzen
 DIAM. FRESA / MILL DIA. / SCHNEIDEN DIA.

±0.120

4 TAGLI rivestite Futura CORTE
4 FLUTE Futura coating SHORT LENGTH
4 SCHNEIDEN Futura Beschichtung KURZ



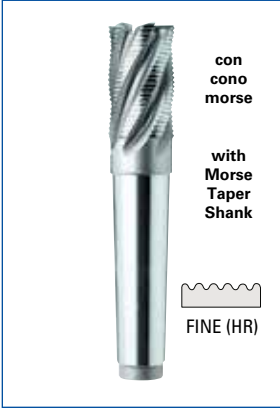
HSS Co8
DIN 845
N
30°
FLUTE 4-8
DIN 228A
P. 200

Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERALL LENGTH	CONO MORSE N. MORSE TAPER NR.	N. TAGLIENTI NR. OF FLUTE
PR4CM-16,00XT	16	32	117	2	4
PR4CM-20,00XT	20	38	123	2	4
PR4CM-25,00XT	25	45	147	3	6
PR4CM-30,00XT	30	45	147	3	6
PR4CM-32,00XT	32	53	178	4	6
PR4CM-35,00XT	35	53	178	4	6
PR4CM-40,00XT	40	63	188	4	6
PR4CM-45,00XT	45	63	188	4	8
PR4CM-50,00XT	50	75	233	5	8

Tolleranza / Tolerance / Toleranzen
DIAM. FRESA / MILL DIA. / SCHNEIDEN DIA.
±0.120

4 TAGLI sgrossare CORTE
4 FLUTE roughing SHORT LENGTH
4 SCHNEIDEN Schruppfräser KURZ



HSS Co8 DIN 845 HR $\approx 30^\circ$ FLUTE 4-6 DIN 228A P. 205

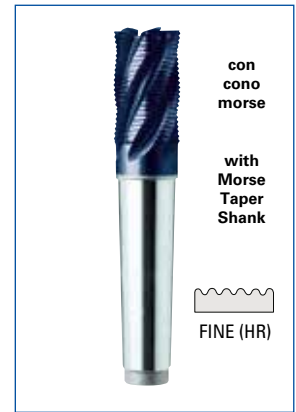


Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	CONO MORSE N. MORSE TAPER NR.	N. TAGLIENTI NR. OF FLUTE
PR4SCM-16,00	16	32	117	2	4
PR4SCM-20,00	20	38	123	2	4
PR4SCM-25,00	25	45	147	3	5
PR4SCM-30,00	30	45	147	3	6
PR4SCM-32,00	32	53	178	4	6
PR4SCM-35,00	35	53	178	4	6
PR4SCM-40,00	40	63	188	4	6
PR4SCM-45,00	45	63	188	4	6
PR4SCM-50,00	50	75	233	5	6

Tolleranza / Tolerance / Toleranzen
 DIAM. FRESA / MILL DIA. / SCHNEIDEN DIA.
 ±0.120

4 TAGLI rivestite Futura sgrossare CORTE
4 FLUTE Futura coating roughing SHORT LENGTH
4 SCHNEIDEN Futura Beschichtung
Schruppfräser KURZ



HSS Co8 DIN 845 HR $\approx 30^\circ$ FLUTE 4-6 DIN 228A P. 206



Unit: mm

CODICE N. NR. CODE	DIAMETRO FRESA MILL DIAMETER	LUNGHEZZA TAGLIENTE LENGTH OF CUT	LUNGHEZZA TOTALE OVERAL LENGTH	CONO MORSE N. MORSE TAPER NR.	N. TAGLIANTI NR. OF FLUTE
PR4SCM-16,00XT	16	32	117	2	4
PR4SCM-20,00XT	20	38	123	2	4
PR4SCM-25,00XT	25	45	147	3	5
PR4SCM-30,00XT	30	45	147	3	6
PR4SCM-32,00XT	32	53	178	4	6
PR4SCM-35,00XT	35	53	178	4	6
PR4SCM-40,00XT	40	63	188	4	6
PR4SCM-45,00XT	45	63	188	4	6
PR4SCM-50,00XT	50	75	233	5	6

Tolleranza / Tolerance / Toleranzen
DIAM. FRESA / MILL DIA. / SCHNEIDEN DIA.

±0.120



PARAMETRI DI TAGLIO E DATI TECNICI



SPEED & FEED DATA AND CHARACTERISTICS



SCHNITTWERTE UND EIGENHEITEN

PUNTE ELICOIDALI IN HSS, HSS-CO, PREMIUM

HSS, HSS-CO, PREMIUM TWIST DRILLS

HSS, HSS-CO, PREMIUM SPIRALBOHRER


PUNTE ELICOIDALI HSS & COBALTO 8%, DIN 1897, DIN338, DIN340, DIN1869, DIN345, DIN341, DIN1870
HSS & COBALTO 8% HSS DRILL, DIN 1897, DIN338, DIN340, DIN1869, DIN345, DIN341, DIN1870
HSS & COBALTO 8% HSS SPIRALBOHRER, DIN 1897, DIN338, DIN340, DIN1869, DIN345, DIN341, DIN1870

 Serie PRPECN, PRPCN, PRPCNT, PRPLNC, PRPEN, PRPCMN, PRPCMNT, PRPCEAN, PRPCE1N, PRPCE2N
 PRPECN, PRPCN, PRPCNT, PRPLNC, PRPEN, PRPCMN, PRPCMNT, PRPCEAN, PRPCE1N, PRPCE2N Series

MATERIALE DA LAVORARE Material Werkstück	DUREZZA Hardness	RESISTENZA Strength	DIAMETRO / Diameter (mm)															
			2.5		3		5		8		11		19		32		50	
			N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
ACCIAIO AL CARBONIO Carbon Steels Stähle		~570 N/mm ²	3380	0.025	2700	0.050	1700	0.063	1050	0.130	750	0.150	440	0.230	260	0.280	165	0.330
ACCIAIO AL CARBONIO Carbon Steels Stähle	~HRC 23	~830 N/mm ²	2550	0.025	2000	0.050	1280	0.063	780	0.130	560	0.150	330	0.230	195	0.280	125	0.330
ACCIAIO AL CARBONIO Carbon Steels Stähle	HRc 23~28	830~950 N/mm ²	1900	0.015	1500	0.025	960	0.038	590	0.076	425	0.076	255	0.130	145	0.180	93	0.200
ACCIAIO LEGATO Alloy Steels Stahl - Legierungen	HRc 23~34	830~1110 N/mm ²	2380	0.020	1880	0.050	1190	0.063	730	0.130	520	0.180	300	0.230	180	0.180	115	0.200
ACCIAIO LEGATO Alloy Steels Stahl - Legierungen	HRc 34~38	1110~1260 N/mm ²	1400	0.015	1100	0.020	700	0.025	430	0.038	310	0.050	180	0.050	107	0.076	68	0.076
ACCIAIO INOX Stainless Steels Edelstähle	HRc 23	830 N/mm ²	2550	0.025	2000	0.050	1280	0.063	780	0.130	560	0.150	330	0.230	195	0.280	125	0.330
LEGA DI TITANIO Titanium Alloys Titan-Legierungen		410 N/mm ²	1400	0.020	1100	0.025	700	0.038	430	0.076	430	0.076	180	0.130	107	0.180	68	0.200
ACCIAIO DA UTENSILI Tool Steels Werkzeugstähle		270 N/mm ²	3180	0.042	2500	0.050	1590	0.063	970	0.130	700	0.180	440	0.230	240	0.300	150	0.430
GHISA Cast Iron Gusseisen	HRc 21	800 N/mm ²	2250	0.025	2000	0.050	1280	0.063	780	0.130	560	0.150	330	0.230	195	0.280	125	0.330
LEGA DI ALLUMINIO Aluminium Alloys Aluminium-Legierungen			6400	0.038	5000	0.063	3200	0.076	2000	0.180	1400	0.200	820	0.300	490	0.380	310	0.460
LEGA DI MAGNESIO Magnesium Alloys Magnesium-Legierungen			8600	0.038	6800	0.063	4300	0.076	2600	0.180	1900	0.200	1100	0.300	660	0.380	415	0.460
LEGA DI ZINCO Zinc Alloys Zink-Legierungen			6400	0.038	5000	0.063	3200	0.076	2000	0.180	1400	0.200	820	0.300	490	0.380	310	0.460
PLASTICA Plastic Plastik			3380	0.025	2700	0.050	1700	0.063	1050	0.130	750	0.150	440	0.230	260	0.280	165	0.330

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


CONDIZIONI DI TAGLIO RACCOMANDATE

RECOMMENDED CUTTING CONDITIONS

EMPFOHLENE SCHNEIDKONDITIONEN
PUNTE ELICOIDALI CILINDRICHE COBALTO 5% E COBALTO 8%, DIN 338
COBALT 5% AND COBALT 8% HSS TWIST DRILLS FOR HEAVY DUTY, DIN338
KOBALT 5% UND KOBALT 8% HSS SPIRALBOHRER FÜR HOHELEISTUNGEN, DIN338

 Serie PRPCNC, PRPCNCT
 PRPCNC, PRPCNCT Series

MATERIALE DA LAVORARE Material Werkstück	DUREZZA Hardness	RESISTENZA Strength	DIAMETRO / Diameter (mm)															
			2.5		3		5		8		11		19		32		50	
			N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
ACCIAIO AL CARBONIO Carbon Steels Stähle		~570 N/mm ²	4300	0.025	3280	0.050	2030	0.063	1270	0.130	900	0.150	530	0.230	310	0.280	195	0.330
ACCIAIO AL CARBONIO Carbon Steels Stähle	~HRC 23	~830 N/mm ²	3040	0.025	2430	0.050	1530	0.063	950	0.130	680	0.150	400	0.230	230	0.280	150	0.330
ACCIAIO AL CARBONIO Carbon Steels Stähle	HRc 23~28	830~950 N/mm ²	2270	0.015	1820	0.025	1150	0.038	710	0.076	510	0.076	310	0.130	170	0.180	110	0.200
ACCIAIO LEGATO Alloy Steels Stahl - Legierungen	HRc 23~34	830~1110 N/mm ²	2840	0.020	2280	0.050	1420	0.063	880	0.130	630	0.180	360	0.230	220	0.180	140	0.200
ACCIAIO LEGATO Alloy Steels Stahl - Legierungen	HRc 34~38	1110~1260 N/mm ²	1670	0.015	1340	0.020	840	0.025	520	0.038	370	0.050	220	0.050	130	0.176	80	0.076
ACCIAIO INOX Stainless Steels Edelstähle	HRc 23	830 N/mm ²	3040	0.025	2430	0.050	1530	0.063	950	0.130	680	0.150	400	0.150	230	0.280	150	0.330
GHISA Cast Iron Gusseisen	HRc 21	800 N/mm ²	2680	0.025	2430	0.050	1530	0.063	950	0.130	680	0.150	400	0.150	230	0.280	150	0.330

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


PUNTE ELICOIDALI CILINDRICHE PER OTTONE, DIN 338
HSS TWIST DRILLS FOR BRASS, DIN338
HSS SPIRALBOHRER FÜR MESSING, DIN338

 Serie PRPCNH
 PRPCNH Series

DIAMETRO Diameter (mm)		MATERIALE DA LAVORARE Material Werkstück
		OTTONE / Brass / Messing
2	N	8750
	S	0.08
4	N	4350
	S	0.12
6	N	2900
	S	0.16
8	N	2200
	S	0.20
10	N	1750
	S	0.25
12	N	1450
	S	0.28
14	N	1250
	S	0.32

PUNTE ELICOIDALI CILINDRICHE PER ALLUMINIO, DIN 338
HSS TWIST DRILLS FOR ALUMINIUM, DIN338
HSS SPIRALBOHRER FÜR ALUMINIUM, DIN338

 Serie PRPCNW
 PRPCNW Series

DIAMETRO Diameter (mm)		MATERIALE DA LAVORARE Material Werkstück	
		LEGA DI ALLUMINIO A TRUCIOLO LUNGO Long chip aluminium alloy Lange Späne Aluminium-Legierungen	LEGA DI ALLUMINIO A TRUCIOLO CORTO Short chip aluminium alloy Kurze Späne Aluminium-Legierungen
2	N	7950	5550
	S	0.08	0.05
4	N	4000	2800
	S	0.12	0.08
6	N	2650	1850
	S	0.16	0.10
8	N	2000	1400
	S	0.20	0.12
10	N	1600	1100
	S	0.25	0.16
12	N	1330	930
	S	0.32	0.20
14	N	1150	800
	S	0.36	0.25

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


PUNTE ELICOIDALI HSSCo5 PER FORI PROFONDI, TIPO GH100, DIN 338, DIN340, DIN1869, DIN341, DIN1870
HSSCo5, GH100 TYPE WORM PATTERN DRILL, DIN338, DIN340, DIN1869, DIN341, DIN1870
HSSCo5, GH100 TYP WORM PATTERN SPIRALBOHRER, DIN338, DIN340, DIN1869, DIN341, DIN1870

 Serie PRPCG, PRPLGC, PRPEGC, PRPCE1G, PRPCE2G
 PRPCG, PRPLGC, PRPEGC, PRPCE1G, PRPCE2G Series

MATERIALE DA LAVORARE Material Werkstück	ACCIAIO AL CARBONIO ACCIAIO LEGATO Carbon Steels • Alloy Steels Stähle • Stähle-Legierungen		ACCIAIO PER UTENSILI ACCIAIO TEMPRATO Tool Steels • Hardened Steels Werkzeugstähle gehartete Stähle		GHISA GRIGIA TENERA Soft Grey Cast Iron Weicher Grauguss		GHISA GRIGIA DURA Hard Grey Cast Iron Harter Grauguss	
	DUREZZA / Hardness HRc15 ~ HRc30		DUREZZA / Hardness HRc20 ~ HRc40					
RESISTENZA / Strength	700 ~ 1000 N/mm ²		800 ~ 1200 N/mm ²					
DIAMETRO / Diameter	N	S	N	S	N	S	N	S
2.0	2630	0.03	2100	0.025	4200	0.06	1680	0.05
2.5	2100	0.04	1680	0.03	3300	0.08	1310	0.06
3.0	1680	0.05	1310	0.04	2630	0.10	1050	0.08
4.0	1310	0.06	1050	0.05	2100	0.13	840	0.10
5.0	1050	0.06	840	0.05	1680	0.13	660	0.10
6.0	840	0.08	660	0.06	1310	0.16	530	0.13
8.0	660	0.10	530	0.08	1050	0.20	420	0.17
10.0	530	0.13	420	0.10	840	0.25	330	0.21
13.0	420	0.13	330	0.10	660	0.25	260	0.21
16.0	330	0.15	260	0.13	530	0.30	210	0.25
20.0	260	0.20	210	0.15	420	0.40	170	0.30
25.0	210	0.25	170	0.20	330	0.50	130	0.50
30.0	170	0.25	130	0.20	260	0.50	110	0.50

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


PUNTE ELICOIDALI CILINDRICHE SHP, RIVESTITE FUTURA
PREMIUM COBALT HSS, SHP TWIST DRILLS, FUTURA COATED
PREMIUM COBALT HSS, SHP SPIRALBOHRER, FUTURA-BESCHICHTET

Serie PRPECH, PRPCH, PRPECH, PRPCH
PRPECH, PRPCH, PRPECH, PRPCH Series

- Per favore diminuire l'avanzamento nelle punte SHP Serie PRPCH

- Please decrease the feed rate in PRPCH Series SHP drills. • Den Vorschub in der PRPCH Gruppe SHP Bohrer bitte verringern.

MATERIALE DA LAVORARE Material Werkstück	ACCIAIO AL CARBONIO (S45C-S50C) <900 N/mm ² Carbon Steels Stähle		ACCIAIO LEGATO (SCM-SNC-SNCM) >1100 N/mm ² Alloy Steels Stahl-Legierungen		ACCIAIO PER UTENSILI ACCIAIO LEGATO (SKD11) >180 HB 30 Tool Steels, alloy Steels Werkzeugstähle Stahl-Legierungen		ACCIAIO PER UTENSILI GHISA <180 HB 30 Cast Iron tool steel Gusseisen Werkzeugstähle		LEGA DI ALLUMINIO LEGA DI MAGNESIO Aluminium alloy Magnesium alloy Aluminium-Legierungen Magnesium-Legierungen	
	N	S	N	S	N	S	N	S	N	S
2	4200	0.08	3600	0.08	1700	0.08	5800	0.11	10500	0.16
3	2900	0.13	2500	0.13	1000	0.13	4000	0.14	10500	0.25
4	2100	0.14	1900	0.14	850	0.14	3000	0.17	8000	0.30
5	1700	0.16	1500	0.16	650	0.16	2400	0.20	6500	0.36
6	1300	0.17	1300	0.17	550	0.17	2100	0.23	5200	0.42
8	1000	0.21	950	0.21	400	0.21	1500	0.26	4200	0.47
10	850	0.25	750	0.25	300	0.25	1100	0.32	3400	0.56
12	700	0.30	650	0.30	280	0.30	1000	0.38	2700	0.67
14	550	0.35	500	0.35	240	0.35	850	0.40	2400	0.72
16	520	0.38	470	0.38	210	0.38	750	0.42	2100	0.77
18	450	0.44	420	0.44	190	0.44	700	0.45	1900	0.80
20	400	0.45	350	0.45	170	0.45	600	0.51	1600	0.87
22	370	0.50	340	0.50	160	0.50	550	0.52	1500	0.95
24	350	0.52	300	0.52	150	0.52	500	0.58	1400	1.00
26	320	0.55	280	0.55	130	0.55	450	0.60	1300	1.05
28	300	0.60	260	0.60	120	0.60	420	0.63	1200	1.10
30	280	0.63	240	0.63	105	0.63	400	0.74	1100	1.15
32	260	0.68	230	0.68	105	0.68	380	0.74	950	1.20

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


PUNTE ELICOIDALI CILINDRICHE SHP-INOX, RIVESTITE FUTURA
HSS-EX, SHP-SUS TWIST DRILLS, FUTURA COATED
HSS-EX, SHP-SUS SPIRALBOHRER, FUTURA-BESCHICHTET

Serie PRPECHS, PRPCHS
PRPECHS, PRPCHS Series

- Per favore diminuire l'avanzamento nelle punte SHP-Inox Serie PRPCHS

- Please decrease the feed rate in PRPCHS Series SHP-Inox drills. • Den Vorschub in der PRPCHS Gruppe SHP-Inox Bohrer bitte verringern.

MATERIALE DA LAVORARE Material Werkstück	ACCIAIO INOX (SUS304, 200) Stainless Steels Edelstähle		ACCIAIO INOX (SUS420, 440) Stainless Steels Edelstähle		ALLUMINIO E LEGA DI ALLUMINIO Aluminium & Aluminium alloy Aluminium und Alumi- nium-Legierungen		PLASTICA, RAME, LEGA DI RAME Plastics, Cooper, Cooper alloys Plastik, Kupfer, Kupfer-Legierungen		ACCIAIO DOLCE ACCIAIO A BASSO TENO RE DI CARBONIO Mild steels low carbon steels Stähle, Weich Stähle	
	N	S	N	S	N	S	N	S	N	S
2	2600	0.07	3100	0.07	11,000	0.09	5600	0.06	6300	0.08
3	1800	0.08	2100	0.08	7350	0.13	3750	0.08	4200	0.13
4	1300	0.10	1600	0.10	7050	0.18	2800	0.10	3200	0.14
5	1050	0.14	1250	0.15	5500	0.22	2250	0.13	2500	0.16
6	900	0.17	1050	0.18	4600	0.26	1850	0.15	2100	0.18
8	650	0.22	800	0.24	3500	0.34	1350	0.20	1550	0.22
10	550	0.26	630	0.30	2800	0.40	1100	0.25	1250	0.26
12	450	0.33	530	0.36	2300	0.50	950	0.30	1050	0.32
14	400	0.36	450	0.44	2050	0.55	800	0.33	900	0.36
16	350	0.40	390	0.48	1750	0.62	700	0.35	790	0.40
18	300	0.43	350	0.50	1600	0.70	620	0.40	700	0.45
20	260	0.46	320	0.53	1450	0.75	56	0.40	620	0.47

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)


PUNTE ELICOIDALI CILINDRICHE 3xD EXTRACORTE E 5xD CORTE, RIVESTITE TIALN
HSS-PM, TWIST DRILLS, 3xD STUB AND 5xD JOBBER, TIALN COATING
HSS-PM, SPIRALBOHRER, 3xD EXTRA KURZ UND 5xD KURZ, TIALN-BESCHICHTET

 Serie PM-DRILL
 PM-DRILL Series

PM-DRILL 3xD Extracorte • HSS-PM 3xD STUB • HSS-PM 3xD EXTRA KURZ

MATERIALE DA LAVORARE Material Werkstück	ACCIAIO AL CARBONIO Carbon Steels Stahl		ACCIAI LEGATI PRE-TEMPRATI Pre-Hardned Steels Pre-gehärtetem Stahl		GHISA Cast Iron Gusseisen		LEGHE DI ALLUMINIO LEGHE MATERIALI NON FERROSI Aluminium alloys Aluminium Legierungen		ACCIAI PER STAMPI TEMPRATI (30-45 HRC) ACCIAI INOSSIDABILI (AISI304-316) Hardened Steels for Moulds (30-45 HRC) Stainless Steels (AISI304-316) Aus gehärtetem Stahl für Formenbau (30-45 HRC) Ederstähle (AISI304-316)		ACCIAI INOSSIDABILI (AISI420-440) Stainless Steels (AISI420-440) Ederstähle (AISI420-440)	
	N	S	N	S	N	S	N	S	N	S	N	S
2	5800	0.06	4700	0.05	6500	0.08	10500	0.17	2600	0.04	3100	0.08
3	4300	0.12	3500	0.09	4900	0.14	10500	0.27	1800	0.05	2100	0.09
4	3200	0.15	2600	0.13	3600	0.18	8000	0.33	1300	0.07	1600	0.11
5	2600	0.18	2100	0.16	2900	0.21	6500	0.39	1050	0.09	1250	0.17
6	2100	0.20	1700	0.18	2400	0.25	5200	0.46	900	0.10	1050	0.19
8	1600	0.24	1300	0.20	1800	0.29	4200	0.51	650	0.14	800	0.26
10	1300	0.27	1000	0.24	1500	0.32	3400	0.61	550	0.17	630	0.33
12	1100	0.29	850	0.26	1200	0.36	2700	0.73	450	0.20	530	0.39

PM-DRILL 5xD Corte • HSS-PM 5xD JOBBER • HSS-PM 5xD KURZ

MATERIALE DA LAVORARE Material Werkstück	ACCIAIO AL CARBONIO Carbon Steels Stahl		ACCIAI LEGATI PRE-TEMPRATI Pre-Hardned Steels Pre-gehärtetem Stahl		GHISA Cast Iron Gusseisen		LEGHE DI ALLUMINIO LEGHE MATERIALI NON FERROSI Aluminium alloys Aluminium Legierungen		ACCIAI PER STAMPI TEMPRATI (30-45 HRC) ACCIAI INOSSIDABILI (AISI304-316) Hardened Steels for Moulds (30-45 HRC) Stainless Steels (AISI304-316) Aus gehärtetem Stahl für Formenbau (30-45 HRC) Ederstähle (AISI304-316)		ACCIAI INOSSIDABILI (AISI420-440) Stainless Steels (AISI420-440) Ederstähle (AISI420-440)	
	N	S	N	S	N	S	N	S	N	S	N	S
2	5800	0.05	4700	0.04	6500	0.07	10500	0.14	2600	0.03	3100	0.07
3	4300	0.10	3500	0.08	4900	0.12	10500	0.23	1800	0.04	2100	0.08
4	3200	0.13	2600	0.11	3600	0.15	8000	0.28	1300	0.06	1600	0.09
5	2600	0.15	2100	0.14	2900	0.18	6500	0.33	1050	0.08	1250	0.14
6	2100	0.17	1700	0.15	2400	0.21	5200	0.39	900	0.09	1050	0.16
8	1600	0.20	1300	0.17	1800	0.25	4200	0.43	650	0.12	800	0.22
10	1300	0.23	1000	0.20	1500	0.27	3400	0.52	550	0.14	630	0.28
12	1100	0.25	850	0.22	1200	0.31	2700	0.62	450	0.17	530	0.33

N = Giri / R.P.M.

S = Avanzamento per giro (mm/rev.) / Feed per revolution (mm/rev.)



PARAMETRI DI TAGLIO E DATI TECNICI



SPEED & FEED DATA AND CHARACTERISTICS



SCHNITTWERTE UND EIGENHEITEN

**MASCHI A MANO E A MACCHINA
IN HSS, HSS-E E ASP**

HSS, HSS-E AND ASP TAPS

**HSS, HSS-E UND ASP
GEWINDEBOHRER**

MATERIALI LAVORABILI
WORKING MATERIALS
N


Per impiego universale e per acciai.
For general purpose and steels.
Rm <1000 N/mm²

HR


Acciai trattati
High alloyed steels
Rm >1,000 N/mm²

VA


Acciaio Inox
Stainless steels

GG


Ghisa, Ghisa grigia
Grey Cast Iron

VAX


Per impieghi universali: acciaio inox,
acciai legati, acciai con R_s ≥ 1200 N/mm²
Rame e leghe di alluminio a truciolo
lungo
For all applications: stainless steels, alloy
steels, tool steel with R_s ≥ 1200 N/mm²
copper, aluminum alloy with long chip

TiH


Per acciai temprati ≥ HRC 50
per leghe di titanio e nichel
For tempered steels ≥ HRC 50
for titanium and nickel alloys

AL


Alluminio e leghe d'Alluminio
Aluminium & Aluminium Alloys

MATERIALI DEI MASCHI
TAP MATERIALS
HSS

HSS (M2)
High Speed Steels (M2)

HSS-E

HSS-CO 5% (M35)
5% Co. High Speed Steels (M35)

HSS-PM

Acciaio sinterizzato HSS
Powder Metallurgy - High Speed Steels

HM

Metallo duro
Carbide

ALTRI
OTHERS
AZ

Con filetti alternati
With Interrupted Threads

LH

Filettatura Sinistra
Left Hand Thread

TRATTAMENTI SUPERFICIALI E RIVESTIMENTI
SURFACE TREATMENT AND COATING
NI

Nitrurato
Nitrided

TiN

Rivestimento TiN
TiN-Coating (Titanium Nitride)

vap

Vaporizzato
Steam Tempered

TiCN

Rivestimento TiCN
TiCN-Coating (Titanium Carbon Nitride)

TiAlN

Rivestimenti TiAlN
TiAlN-Coating (Titanium Aluminium Nitride)

Hardlube

Rivestimento TiAlN+WC/C
TiAlN+WC/C-Coating

IMBOCCO MASCHI SECONDO DIN 2197
CHAMFER LEAD ACC. TO DIN 2197
A

Forma A (5-6 Filetti di imbocco)
Form A (Chamfer Lead 5-6 Threads)

B

Forma B (Imbocco corretto, 4-5 filetti di imbocco)
Form B (with GUN-Nose and Chamfer Lead 4-5 Threads)

C

Forma C (2-3 filetti di imbocco)
Form C (Chamfer Lead 2-3 Threads)

D

Forma D (4-5 filetti di imbocco)
Form D (Chamfer Lead 4-5 Threads)

E

Forma E (1,5-2 filetti di imbocco)
Form E (Chamfer Lead 1.5-2 Threads)

Gli acciai ad alta velocità che noi utilizziamo assicurano una buona resistenza all'usura e una buona tenacità. Per questo consegnamo normalmente i nostri maschi con superficie lucida e non trattata. Nella lavorazione di certi materiali alcuni trattamenti della superficie possono portare dei vantaggi.

The High Speed Steels we use grant a good wear resistance and toughness. Therefore we normally deliver our taps with bright, untreated surface. In machining certain materials, various surface treatments are of advantage.

VAPORIZZAZIONE

La vaporizzazione è un rivestimento Fe_3O_4 -ossido che riduce la frizione tra l'utensile e il pezzo da lavorare e previene incollaggi a freddo.

STEAM TEMPERED - vap

The Steam Tempered is a Fe_3O_4 -oxyd-coating which reduces the friction between tool and workpiece and prevents cold welding.

NITRURAZIONE

Consigliamo questa superficie per la lavorazione di materiali che comportano forte usura/abrasioni, come per esempio ghisa, leghe di alluminio con percentuali di silicio maggiori del 10%.

I rivestimenti permettono buone lavorazioni e sono utilizzabili per diverse applicazioni.

Questi rivestimenti vengono prodotti all'interno della nostra azienda.

NITRIDING - NI

We recommend this surface treatment for machining materials which effect a hard wear/abrasion, such as grey cast iron, alu-alloys with high Si-percentage more than 10%.

These are surface finishes of good value and suitable for many application. We do these surface treatments within our own company.

Further surface finishes are the various coatings.

RIVESTIMENTO TiN

Il rivestimento TiN ha una durezza pari a circa **2,300 HV** e resiste fino a temperature di 600 °C. È eccellente per lavorazioni normali.

Colore: **Oro** Coefficiente di frizione su acciaio: 0.4

TiN-COATING

The TiN-coating has a hardness of approx. **2,300 HV** and is temperature-resistant up to approx. 600 °C. This is an excellent all-round coating for normal applications.

Colour: **Golden** Coefficient of friction against steel: 0.4

RIVESTIMENTO TiCN

Il TiCN sostituisce il TiN quando le condizioni richiedono una durezza e una tenacità diversa.

Vantaggioso nella lavorazione di acciai difficili o fori interrotti.

Il rivestimento al TiCN ha una durezza pari a circa **3,000 HV**, però resiste solo fino a temperature di 400 °C. Quindi il TiCN richiede un eccellente raffreddamento per avere una durata maggiore.

Colore: **Grigio-Blu** Coefficiente di frizione su acciaio: 0.4.

TiCN-COATING

TiCN takes place of TiN when the conditions require coating to have a different hardness and toughness.

The TiCN brings advantage in machining very difficult steels or cutting interrupted bores.

The TiCN-coating has a hardness of approx. **3,000 HV**, but is temperature-resistant up to approx. **400 °C** only. That means TiCN needs an excellent cooling for long service life.

Colour: **Blue-Grey** Coefficient of friction against steel: 0.4

RIVESTIMENTO TiAlN

Rivestimento speciale per materiali abrasivi come: ghisa pura, leghe di alluminio con silicio, plastiche con fibre rinforzate, ecc., oppure per lavorazioni con alte temperature, per esempio con raffreddamento insufficiente, o con alte velocità ≥ 600 m/min. Il TiAlN ha una durezza pari a circa **3,000 HV** e resiste a temperature fino a **800 °C**.

Colore: **Viola** Coefficiente di frizione su acciaio: 0.4.

TiAlN-COATING

This is a special coating for machining abrasive materials such as: grey cast iron, alu-alloys with silicon, fiber reinforced plastics, etc., or machining under high temperatures, which means with insufficient cooling, or high speeds ≥ 600 m/min. The TiAlN has a hardness of approx. **3,000 HV** and is temperature resistant up to approx. **800 °C**.

Colour: **Violet-Grey** Coefficient of friction against steel: 0.4

RIVESTIMENTO HARDLUBE

Hardlube unisce i vantaggi del rivestimento TiAlN, durezza e resistenza termica, alle proprietà di scivolamento e lubrificazione di un rivestimento WC/C (carburo di tungsteno) il rivestimento hardlube ha una durezza pari a circa **3,000 HV** e resiste a temperature fino a **800 °C**.

Colore: **Viola** Coefficiente di frizione su acciaio: 0.2

HARDLUBE-COATING

Hardsluk combines in a novel way the advantages of an extremely of an extremely hard, thermally stable TiAlN-coating with the sliding and lubricating properties of an outer WC/C(Tungsten carbide/carbon)-coating. The Hardsluk coating has a hardness of approx. **3,000 HV** and is temperature-resistant up to approx. **800 °C**.

Colour: **Violet-Grey** Coefficient of friction against steel: 0.2

PER MASCHI CON FILETTO METRICO ISO

La parte 1 Standard DIN 802 è stata ritirata e sostituita dal DIN EN 22857.

La tabella seguente illustra la corrispondenza tra il nuovo standard DIN EN 22857 e il DIN 802. Un importante cambiamento è la nuova classificazione dalle classi di tolleranza dei maschi alle classi di applicazione dei maschi.

FOR TAPS WITH METRIC ISO THREADS

The standard DIN 802 part 1 has been withdrawn and replaced by DIN EN 22857.

The following chart gives a comparison between the new standard DIN EN 22857 and the withdrawn standard DIN 802 part 1. An important change is the re-classification from tap tolerance classes to tap application classes.

CLASSI DI APPLICAZIONE DEI MASCHI DIN EN 22857		CLASSI DI TOLLERANZA DEI MASCHI SECONDO DIN 802 PART 1	TOLLERANZA DELLA MADREVITE DA MASCHIARE					
APPLICATION CLASSES FOR TAPS TO DIN EN 22857			TOLERANCE CLASSE TO WITHDRAWN STANDARD DIN 802 PART 1	ALLOTMENT OF THE TOLERANCE ZONES OF THE NUT THREAD TO BE CUT				
NOME / NAME	CODICE / CODE							
Class 1	ISO 1	4H	4H	5H	-	-	-	
Class 2	ISO 2	6H	4G	5G	6H	-	-	
Class 3	ISO 3	6G	-	-	6G	7H	8H	
-	-	7G	-	-	-	7G	8G	

Ci potrà essere un periodo di transizione con entrambi i DIN.

I codici per le classi di tolleranza 7G / 8G e le zone di tolleranza <X> non sono state ancora standardizzate secondo DIN EN 22857. Rimangono validi i valori DIN 802 parte 1.

A suitable transition period is to be expected: Codes for tolerance classes 7G / 8G and <X> tolerance zones have not yet been standardised within DIN EN 22857 and the values from DIN 802 part 1 will continue to be valid.

**CONVERSIONE TRA VELOCITÀ DI TAGLIO
m/min in giri al minuto**
**CUTTING SPEEDS
m/min into Revolutions per minute**

VELOCITÀ DI TAGLIO m/min. / CUTTING SPEED m/min.																
Diametro Utensile	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
Tool Diameter	Utensile / Tool r.p.m.															
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6396	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	318	398	478

**1 Acciaio dolci magnetici
Magnetic Soft Steels
<400 N/mm²**

1.1013 RFe 100
1.1014 RFe 80
1.1015 RFe 60
1.0718 9 s MnPb 28

**2 Acciaio da costruzione,
acciaio da cementazione
Structure/Case Carburizing Steels
<700 N/mm²**

1.0037 St 37-2
1.0050 St 50-2
1.0060 St 60-2
1.0070 St 70-2
1.0401 C 15
1.1141 Ck 15

**3 Acciaio al carbonio trafilato
Plain Carbon Steels
<850 N/mm²**

1.0501 C 35
1.0503 C 45
1.0535 C 55
1.0601 C 60
1.1181 Ck 35
1.1181 Ck 45

**4 Acciaio legato
Alloy Steels
<850 N/mm²**

1.2080 X21Cr12
1.2363 K100CrMoV5-1
1.3243 S 6-5-2-5
1.3343 S 6-5-2
1.7218 25CrMo4
1.7220 34CrMo4

**5 Acciai legati/Temprati & Bonificati
Alloy, Hardened & Tempered Steels
<1,200 N/mm²**

1.2581 X30WCrV9 3
1.2622 X60WCrMoV9
1.2550 60WCrV7
1.6580 30CrNiMo8
1.7361 32CrMo12
1.8515 31CrMo12

**6 Acciai legati/Temprati & Bonificati
Alloy, Hardened & Tempered Steels
<1,200 N/mm²**

Questo gruppo è molto simile al gruppo 15 ma ha una resistenza alla trazione maggiore.

To this group belong most of the materials of group 15, but present a higher tensile strength.

**7 Inox trafilato
Free machining stainless Steels
<850 N/mm²**

1.4005 X12CrS13
1.4006 X10Cr13
1.4016 X6Cr17
1.4104 X12CrMoS17
1.4305 X10CrNiS18 9

**8 Austenitico
Austenitic stainless Steels
<850 N/mm²**

1.4301 X5CrNi18 10
1.4406 X2CrNiMoN17 12 2
1.4435 X2CrNiMo18 14 3
1.4541 X6CrNiTi18 10
1.4571 X6CrNiMo17 12 2
1.4828 X15CrNiSi20 12

**9 Ferritico, Ferritico+Austenitico, Martensitico
Martensitic/Ferritic Fer.-Aus. Stainless Steels
<1,000 N/mm²**

1.4112 X90CrMoV18
1.4125 X105CrMo17
1.4002 X6CrAl13
1.4512 X6CrTi12
1.4582 X4CrNiMoNb25 7
1.4821 X20CrNiSi25 4

**10 Ghisa grigia
Grey graphite cast Irons
<500 N/mm²**

0.6015 GG-15
0.6020 GG-20
0.6025 GG-25
0.6030 GG-30
0.6035 GG-35
0.6040 GG-40

**11 Ghisa grigia
Grey graphite cast Irons
<1,000 N/mm²**

0.6020 GG-20
0.6025 GG-25
0.6030 GG-30
0.6035 GG-35
0.6040 GG-40

**12 Grafite nodulare, ghisa malleabile
Nodular graphite, Malleable cast Irons
<700 N/mm²**

0.7040 GGG-40
0.7043 GGG-40.3
0.7050 GGG-50
0.7060 GGG-60
0.8040 GTW-40
0.8065 GTW-65

**13 Grafite nodulare, ghisa malleabile
Nodular graphite, Malleable, Cast Irons
<1,000 N/mm²**

0.7040 GGG-40
0.7043 GGG-40.3
0.7050 GGG-50
0.7060 GGG-60
0.7070 GGG-70
0.7080 GGG-80

**14 Titanio puro
Titanium unalloys
<700 N/mm²**

3.7024 Ti99.5
3.7034 Ti99.7
3.7035 Ti2
3.7055 Ti99.4
3.7064 Ti99.2
3.7065 Ti4

**15 Leghe di titanio
Titanium alloys
<900 N/mm²**

TiA14Mn4
3.7114 TiA15Sn2
3.7124 TiCu2
3.7164 TiA16V4
3.7174 TiA16V6Sn2

16 Leghe di titanio
Titanium alloys
<1,300 N/mm²

3.7124 TiCu2
3.7144 TiA16Sn2Zr4Mo2
3.7154 TiAl6Zr5
3.7164 TiA16V4
3.7174 TiA16V6Sn2
3.7184 TiAl4Mo4Sn2

17 Nickel puro
Nickel unalloys
<500 N/mm²

2.1504 NiAlBz
2.4042 Ni99CSi
2.4060 Ni99.6
2.4062 Ni99.4Fe

18 Leghe di nickel
Heat resisting Nickel alloys
<900 N/mm²

2.4360 Monel 400
2.4374 Monel 500
2.4665 Hastelloy X
2.4812 Hastelloy C
2.4816 Inconel 600
1.4873 Incoloy 800

19 Leghe di nickel
Heat resisting Nickel alloys
<1,400 N/mm²

2.4631 Nimonic80A
2.4632 Nimonic90
2.4634 Nimonic105
2.4662 Nimonic901
2.4668 Inconel718
2.4669 Inconel X-750

20 Rame puro
Copper unalloys
<350 N/mm²

2.0060 E-Cu57
2.0070 SE-Cu
2.0090 SF-Cu
2.1356 CuMn3
2.1522 CuSi2Mn

21 Ottone truciolo corto, bronzo, rame
Short chip Brass, Bronze cooper alloys
<700 N/mm²

2.0360 CuZn40 (Ms60)
2.0380 CuZn39Pb2 (Ms58)
2.0410 CuZn44Pb2
2.0580 CuZn40Mn1Pb
2.1086 G-CuSn10Zn
2.1096 G-CuSn5ZnPb

22 Ottone truciolo lungo, bronzo, rame
Long chip Brass, Bronze cooper alloys
<700 N/mm²

2.0250 CuZn20
2.0321 CuZn37
2.1020 CuSn6
2.1080 CuSn6Zn6
2.1245 CuBel.7
2.1293 CuCrZr

23 Cu-Al-Fe
Cu-Al-Fe alloys
<1,500 N/mm²

Ampco 18
Ampco 20
Ampco 25

24 Alluminio, Magnesio non legato
Aluminium-Magnesium unalloys
<350 N/mm²

3.0250 Al99.5H
3.0280 Al99.8H
3.0305 Al99.9
3.3308 Al99.9Mg0.5

25 Leghe di alluminio
Aluminium alloys,
Si < 0.5% <600 N/mm²

3.0515 AlMn1
3.0525 AlMn1Mg0.5
3.1325 AlCuMg1
3.3315 AlMg1
3.3241 G-AlMg3Si
3.3292 GD-AlMg9

26 Leghe di alluminio
Aluminium alloys,
Si < 10% <600 N/mm²

3.2134 G-AISi5Cu1Mg
3.2152 GD-AISi6Cu4
3.2162 GD-AISi8Cu3
3.2373 G-AISi9Mg

27 Leghe di alluminio
Aluminium alloys,
Si > 10% <600 N/mm²

3.2381 G-AISi10Mg
3.2383 G-AISi10Mg(Cu)
3.2581 G-AISi12
3.2583 G-AISi12(Cu)
3.5662 G-MgA16
3.5812 G-MgA18Zn1

28 Termoplastici
Thermoplastic

Delrin(POM)
Teflon
Nylon

29 Plastica termoindurente
Thermosetting plastics

Bachelite
Bakelit
Novopan

30 Plastica rinforzata fibra
Reinforced plastics materials

Fibra di vetro rinforzata
duroplastici e termoplastici
Glass fiber reinforced
Thermo and Duroplastics

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
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ACCIAIO / STEEL
**1 Acciai dolci magnetici - Durezza < 120 HB 30 - Resistenza alla trazione < 400 N/mm²
Magnetic soft steels - Hardness < 120 HB 30 - Tensile strength < 400 N/mm²**

1.1013	RFe 100		0S0A12	EN2	
1.1014	RFe80				
1.1015	RFe 60		230Mo7	EN1	
1.0718	9 S MnPb 28				

**2 Acciaio da costruzione - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm²
Structural steels - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²**
2.1 - Acciai da costruzione / Structural steels

1.0034	RSt 34-2	A34-E EN	1449 34/20 HR		
1.0035	St 33	A33	Fe 310-0		
1.0036	St 37-2		060A35	EN3A,4,5,6,7,8	
1.0037	RSt 37-2				
1.0044	St 44-2				
1.0050	St 50-2		4360-50B	EN 207	
1.0060	St 60-2				
1.0070	St 70-2				
1.0166	St 37-3				
1.0144	St 44-3				

2.2 - Acciai da cementazione / Case carburizing steels

1.0301	C 10	AF 34 C 10	040 A 10		M 1010
1.0401	C 15	AF 37 C 12	080 A 15		M 1015
1.1121	Ck 10	XC 10	040 A 10		1010
1.1141	Ck 15	XC 12	040 A 15		1015
1.5732	14 Ni Cr 10	14 NC 11			3415
1.7015	15 Cr 3	12 C 3	523 M 15		5015
1.7131	16 Mn Cr 5	16MC	527 M 17	EN 32	5115
1.7147	20 Mn Cr 5	20 MC 5			5120

2.3 - Acciai trafilati / Free machining steels

1.0710	15 S 10				
1.0715	9 S Mn 28	S 250	230 M 07		1213
1.0718	9 S Mn Pb 28	S 250 Pb			12 L 13
1.0721	10 S 20	10 F1	210 M 15		1108 1109
1.0722	10 S Pb 20	10 Pb F 2			11 L 08
1.0723	15 S 20	210 A 15		
1.0726	35 S 20	35 MF 6	212 M 36		1140
1.0727	45 S 20	45 MF 4			1146
1.0736	9 S Mn 36	S 300			1215
1.0737	9 S Mn Pb 36	S 300 Pb			12 L 14

2.4 - Fusioni di acciai da costruzioni / Cast structural steels

1.0416	GS - 38				
1.0446	GS - 45				
1.0552	GS - 52				
1.0553	GS - 60	E 36 - 3			
1.0554	GS - 70				

**3 Acciai al carbonio - temperato
Plain carbon steels - tempered**
3.1 - Acciai, temperati - Dur. < 250 HB 30 - Res. < 850 N/mm² / Steels, tempered - Hardness < 250 HB 30 - Tensile strengt < 850 N/mm²

1.0402	C 22	1 C 22	070 M 20		M 1023
1.0501	C 35	1 C 35	080 A 32		1035
1.0503	C 45	1 C 45	060 A 47		1045
1.0535	C 55	1 C 55	070 M 55		1055
1.0601	C 60	1 C 60	060 A 62	EN 43	1060
1.1157	40 Mn 4	35 M 5	150 M 36		1035 1041
1.1151	Ck 22	2 C 22	055 M 15		1020 1023
1.1181	Ck 35	2 C 35	080 A 35		1035 1038
1.1191	Ck 45	2 C 45	080 M 46	EN 9, 10	1045
1.1203	Ck 55	2 C 55	060 A 57		1055
1.1221	Ck 60	2 C 60	060 A 62		1060 1064

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ACCIAIO / STEEL
4
Acciai legati - Durezza < 250 HB 30, < 25 HRC - Resistenza alla trazione < 850 N/mm²
Alloy steels - Hardness < 250 HB 30, < 25 HRC - Tensile strength < 850 N/mm²
4.1 - Acciai per utensili a freddo / Cold work tool steels

1.2056	90 Cr 3				
1.2067	100 Cr 6	Y 100 C 6	BL 3		L 1 L 3
1.2080	X 210 Cr 12	Z 200 C 12	BD 3		D3
1.2083	X 42 CR 13	Z 40 C 14			420
1.2363	X 100 CrMoV5 1	Z 100 CDV 5	BA 2		A 2
1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2		D 2
1.2510	100 MnCrW 4	90MWCV 5	BO 1		O1
1.2550	60 WCrV 7	55WC 20	BS 1		S1
1.2823	70 Si 7				
1.2826	60 Mn Si Cr 4				
1.2842	90 MnCrV 8	90 MV 8	BO 2		O 2

4.2 - Acciai super rapidi / High speed steels

1.3202	SC12-4-4-5	Z 130 WKCV 12-05-04-04	BT 15		T 15
1.3207	S 10-4-3-10	Z 130 WKCDV 10-10-04-04-03	BT 42		T 42
1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02	BM 35		M 35
1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04-02-01	BM42		M 42
1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2		M 2
1.3344	S 6-5-3	Z 120 WDCV 06-05-04-03			M 3/2
1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02			M 7
ASP 23	(S 6-5-3)				
ASP 30					
ASP 60					

4.3 - Ghise legate / Alloy cast irons

1.5919	GS-15Cr Ni 6	16 NC 6			3115
1.7218	GS-25Cr Mo 4	25 C D 4	70 8A 25		4130
1.7220	GS-34 Cr Mo 4	35 C D 4	70 8A 37		4135 4137
1.7379	GS-18 Cr Mo 9 10				

4.4 - Acciai temprati / Tempered steels

1.0503	C 45	1 C 45	060 A 47		1045
1.7220	34 Cr Mo 4	34 Cr Mo 4	708 A 37		4135, 4137
1.7225	42 Cr Mo 4	42 CD 4	708 A 42	EN 16, 17, 19	4140, 4142
1.7228	50 Cr Mo 4	50 Cr Mo 4	708 A 47		4150

4.5 - Acciai nitrurati / Nitriding steels

1.7779	20 Cr Mo V 13.5				
1.8504	34 Cr Al 6				
1.8506	34 Cr Al S 5				
1.8507	34 Cr Al Mo 5	30 CAD 6.12			A 355 CLD
1.8509	41 Cr Al Mo 7	40 CAD 6.12	905 M 39		A 355 CLA
1.8515	31 Cr Mo 12	30 CD 12	722 M 24		

STANDARD / STANDARDS

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ACCIAIO / STEEL
5
Acciai legati / Acciai temperati - Durezza 250-350 HB 30, < 25-38 HRC - Resistenza alla trazione 850-1,200 N/mm²
Alloy steels / Tempered steels - Hardness 250-350 HB 30, < 25-38 HRC - Tensile strength 850-1,200 N/mm²
5.1 - Acciai legati per utensili / Alloy steels for tool steels

1.2311	40 Cr Mn Mo 7				
1.2312	40 Cr Mn Mo S 86				
1.2436	X 210 Cr W 12	Z 200CW 12			
1.2711	54 Ni Cr Mo V 6				
1.2713	55 Ni Cr Mo V 6	55 NCDV 7	826 M 40	S 95, S 97, S 98	L 6
1.2714	56 Ni Cr Mo V 7				
1.2743	60 Ni Cr Mo V 12 4				
1.2766	35 Ni Cr Mo 16				

5.2 - Acciai legati per lavorazioni a caldo / Alloy steels for hot work

1.22343	X 38 Cr Mo V 5.1	Z 38 CDV 5	BH 11		H 11
1.2344	X 70 Cr MO V 5.1	Z 40 CDV 5	BH 13		H 13
1.2365	X 32 Cr MO V 5.3	32 DCV 28	BH 10		H 10
1.2367	X 40 Cr Mo V 5.3	Z 38 CDV 5.3			
1.2581	X 30 W Cr V 9 3	Z 30 WCV 9.3	BH 21		H 21
1.2622	X 60 W Cr Mo V 9				
1.2678	X 45 CoCrWV 5 5 5				
1.2550	60 WCr V 7	55 WC 20	BS 1		S 1
1.2567	X 30 W Cr V 5.3	Z 32 WCV 5			

5.3 - Acciai temperati - La durezza cambia secondo il tipo e le dimensioni
Hardened tempered steels - Hardnes may be different according to presentation and dimensions of material

1.5864	35 Ni Cr 18				
1.6580	30 Cr Ni Mo 8	30 Cr Ni Mo 8			
1.7361	32 Cr Mo 12	30 CD 12	722 M 24		
1.7707	30 Cr Mo V 9				
1.8161	58 Cr V 4				

5.4 - Acciai nitrurati - Nitriding steels

1.8515	31 Cr Mo 12	30 CD 12	722 M 24		
1.8519	31 Cr Mo V 9		830 M 31		
1.8523	39 Cr Mo V 13 9		897 M 39		
1.8550	34 Cr Al Ni 7		826 M 40		

6
Acciai legati / Acciai temprati - Durezza > 38 HRC - Resistenza alla trazione > 1,200 N/mm²
Alloy steels / Tempered steels - Hardness > 38 HRC - Tensile strength > 1,200 N/mm²

Questo gruppo è molto simile al gruppo 5, ma ha una resistenza alla trazione maggiore.
 To this group belong most of the materials of group 5, but present a higher tensile strenght.

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
ACCIAI INOX / STEEL STEELS					
7	Acciai inox trafilati - Durezza < 250 HB 30 - Resistenza alla trazione < 850 N/mm² Free machining stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²				
1.4104	X 12 Cr Mo S 17	Z 13 CF 17	416 S 37	RN 56	430 F
1.4305	X 10 Cr Ni S 18 09	Z 8 CNF 19-09	303 S 21	EN 60	303
8	Acciai inox austenici - Durezza < 250 HB 30 - Resistenza alla trazione < 850 N/mm² Austenitic stainless steels - Hardness < 250 HB 30 - Tensile strength < 850 N/mm²				
1.4300	X 12 Cr Ni 18 8		320 S 12		
1.4301	X 5 Cr Ni 18 10	Z 6 CN 18-09	304 S 15	EN 80, EN 58 + C	304
1.4311	X 2 CrNiN 18 10	Z 3 CN 18-07 Az	304 S 61		304 LN
1.4406	X 2 CrNiMoN 17 12 2	Z 3 CND 17 11 02	316 S 61		316 LN
1.4433	X 2 CrNiMo 18 18		318 S		
1.4435	X 2 CrNiMo 18 14 3	Z 3 CND 17-12-03	316 S 11		316 L
1.4539	X 1 CrNiMoCu 25 20 5	Z 1 NCDU 25-20	321 S 17		UNS N08904
1.4541	X 6 CrNiTi 18 10	Z 6 CNT 18 10	321 S 18	EN 58 J, 316	321
1.4571	X 6 CrNiMoTi 17 12 2	Z 6 CNDT 17 12	320 S 18		316 Ti
1.4573	X 10 CrNiMoTi 18 12		320 S 33		
1.4828	X 15 CrNiSi 20 12	Z 15 CNS 20-12	309 S 24		309
8.1	Fusioni di acciai inox austenici - Cast austenitic stainless steels				
1.4308	G-X 6 CrNi 18 9	Z 6 CN 18, 10 M	304 C 15(LT196)		CF-8
1.4313	G-X 5 CrNi 13 4	Z 8 CD 17-01	425 C 12		CA 6-NM
1.4408	G-X 6 CrNiMo 18 10		316 C 16(LT196)		CF-8M
1.4581	G-X 5 CrNiMoNb 18 10	Z 4 CNDNb 18, 12M	318 C 17		
9	Acciai inox martensitici - Durezza < 320 HB 30 - Resistenza alla trazione < 1,100 N/mm² Martensitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²				
1.4021	X 20 Cr 13	Z 20 C 13	420 S 37		420
1.4034	X 46 Cr 13	Z 44 C 14	(420 S 45)		
1.4057	X 20 CrNi 17 2	Z 15 CN 16-02	431 S 29		431
1.4112	X 90 CrMoV 18				
1.4116	X 45 CrMoV 15			EN 58, b.e.j.t	
1.4125	X 105 CrMo 17	Z 100 CD 17		Duplex alloys	440 C
1.4718	X 45 CrSi 9 3	Z 45 CS 9	401 S 45		HNV 3
1.4747	X 80 CrNiSi 20	Z 80 CSN 20-02	443 S 65		HNV 6
1.4086	G-X 120 Cr 29				
1.4106	G-X 10 CrMo 13				
1.4138	G-X 120 CrMo 29 2				
9	Acciai inox ferritici - Durezza < 320 HB 30 - Resistenza alla trazione < 1,100 N/mm² Ferritic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²				
1.4002	X 6 Cr Al 13	Z 8 CA 12	405 S 17		405
1.4006	X 10 Cr 13	Z 10 C 13	410 C 21		410
1.4016	X 6 Cr 17	Z 8 C 17	430 S 17		430
1.4510	X 6 Cr Ti 17	Z 8 CT 17			430 Ti
1.4512	X 6 Cr Ti 12	Z 6 CT 12	409 S 19		409
9	Acciai inox ferritici-austenitici - Durezza < 320 HB 30 - Resistenza alla trazione < 1,100 N/mm² Ferritic-Austenitic stainless steels - Hardness < 320 HB 30 - Tensile strength < 1,100 N/mm²				
1.4460	X 8 CrNiMo 27 5	Z 5 CND 27-05 Az			329
1.4582	X 4 CrNiMoNb 25 7				
1.4821	X 20 CrNiSi 25 4				

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
GHISA / CAST IRONS					
10	Ghisa grigia - Durezza < 150 HB 30 - Resistenza alla trazione < 500 N/mm² Grey graphite cast irons - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²				
	0.6010	GG-10	Ft 10 D		A 48-20 B
	0.6015	GG-15	Ft 20 D	Grade 150	Ghisa grigia tenera/Grey cast iron soft A 48-25 B
	0.6020	GG-20	Ft 25 D	Grade 220	A 48-30 B
	0.6025	GG-25	Ft 30 D	Grade 260	A 48-40 B
	0.6030	GG-30	Ft 30 D	Grade 300	A 48-45 B
	0.6035	GG-35	Ft 35 D	Grade 350	A 48-50 B
	0.6040	GG-40	Ft 40 D	Grade 400	A 48-60 B
10.1 - Ghisa meehanite - Durezza < 150 HB 30 - Resistenza alla trazione < 500 N/mm² Meehanite - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²					
	-----	GF-150			
	-----	GD-260			
11	Ghisa grigia - Durezza 150 - 300 HB 30 - Resistenza alla trazione 500 - 1,100 N/mm² Grey graphite cast irons - Hardness 150 - 300 HB 30 - Tensile strength 500 - 1,100 N/mm²				
	0.6020	GG-20	Ft 25 D	Grade 220	Ghisa grigia dura/Grey cast iron hard A 48-30 B
	0.6025	GG-25	Ft 30 D	Grade 260	A 48-40 B
	0.6030	GG-30	Ft 30 D	Grade 300	A 48-45 B
	0.6035	GG-35	Ft 35 D	Grade 350	A 48-50 B
	0.6040	GG-40	Ft 40 D	Grade 400	A 48-60 B
11.1 - Ghisa meehanite - Durezza 150-300 HB 30 - Resistenza alla trazione 500-1,000 N/mm² Meehanite - Hardness 150-300 HB 30 - Tensile strength 500-1,000 N/mm²					
	-----	GF-150			
	-----	GD-260			
12	Grafite modulare - Ghisa malleabile - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm² Nodular graphite, malleable cast irons - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²				
	0.7033	GGG-35.3			
	0.7040	GGG-40	FGS 400-12	420 / 12	60-40-18
	0.7043	GGG-40.3	FGS 370-17	370 / 17	
	0.7050	GGG-50	FGS 500-7	500 / 7	65-45-12
	0.7060	GGG-60	FGS 600-3	600 / 3	Ghisa grigia meehanite-S.G.Iron, Meehanite Cuore Bianco&Nero - Black&White Heart 80-55-06
	0.8035	GTW-35		700/2,30g/72	
	0.8040	GTW-40			
	0.8045	GTW-45			
	0.8065	GTS-35			
	0.8145	GTS-45			
	0.8155	GTS-55			
	0.8165	GTS-65			
12.1 - Ghisa meehanite - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm² Meehanite - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²					
	-----	SF-400			
	-----	SPF-600			
13	Grafite Nodulare, Ghisa malleabile temprata - Durezza 200-300 HB 30 - Resistenza alla trazione 700-1,000 N/mm² Nodular graphite, tempered malleable cast irons - Hardness 150 - 300 HB 30 - Tensile strength 500 - 1,100 N/mm²				
	0.7070	GGG-70	FGS 700-2	700 / 2	Ghisa grigia meehanite-S.G.Iron, Meehanite Cuore Bianco&Nero - Black&White Heart 100-70-03
	0.7080	GGG-80	FGS 800-2	800 / 2	120-90-02
	E i materiali del gruppo 33 temprati - And materials from group 33 tempered				
13.1 - Ghisa meehanite - Durezza 200-300 HB 30 - Resistenza alla trazione 700-1,000 N/mm² Meehanite - Hardness 200-300 HB 30 - Tensile strength 700-1,000 N/mm²					
	-----	SH 800		420/12, P 440/7	
	-----	SH 1000			

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
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TITANIO / TITANIUM

14	Titanio puro - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm² Titanium, unalloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²				
	3.7024.1LN	Ti 99.5			
	3.7034.1LN	Ti 99.7			
	3.7035	Ti 2			
	3.7055	Ti 99.4		TA 1-9	Ti 99.0
	3.7064.1LN	Ti 99.2			
	3.7065	Ti 4			
3.7255	Ti 3 Pd				
15	Titanio legato - Durezza < 270 HB 30 - Resistenza alla trazione < 900 N/mm² Titanium, alloys - Hardness < 270 HB 30 - Tensile strength < 900 N/mm²				
		Ti Al 4 Mn 4			
	3.7144 LN	Ti Al 5 Sn 2			
	3.7124 LN	Ti Cu 2		TA 10-14, TA 17	Ti - 2AL
	3.7164 LN	Ti Al 6 V 4		TA 18	
3.7174 LN	Ti Al 6 V 6 Sn 2				
16	Titanio legato - Durezza 270-300 HB 30 - Resistenza alla trazione 900-1,300 N/mm² Titanium, alloys - Hardness 270-300 HB 30 - Tensile strength 900-1,300 N/mm²				
	3.7124 LN	Ti Cu 2			
	3.7144 LN	Ti Al 6 Sn 2 Zr4 Mo2		Ti AL	
	3.7154 LN	Ti Al 6 Zr 5		TA 10-13, TA 28	3.7174LN, 3.7148LN
	3.7164 LN	Ti Al 6 V 4			
	3.7174 LN	Ti Al 6 V Sn 2			
	3.7184 LN	Ti Al 4 Mo 4 Sn 2			

NICHEL / NICKEL

17	Nichel puro - Durezza < 150 HB 30 - Resistenza alla trazione < 500 N/mm² Nickel, unalloys - Hardness < 150 HB 30 - Tensile strength < 500 N/mm²				
	2.1504 LN	Ni Ai Bz			
	2.4042	Ni 99 C Si		NA 11, NA 12	Nickel 200
	2.4060	Ni 99.6			Nickel 270
	2.4062	Ni 99.4 Fe			
18	Leghe di nichel resistenti al calore - Durezza < 270 HB 30 - Resistenza alla trazione < 900 N/mm² Heat resisting nickel alloys - Hardness < 270 HB 30 - Tensile strength < 900 N/mm²				
	2.4360 LN	Monel 400			
	2.4374 LN	Monel 500			
	2.4617	Hastelloy B 2			Nimonic 75
	2.4665	Hastelloy X		HR 203	
	2.4812	Hastelloy C		3027-78	Hastelloy C
	2.4816	Inconel 600			Leghe di Haynes 263
	1.4878	Incoloy 800			
2.4983	Udimet 500				
19	Leghe di nichel resistenti al calore - Durezza 270-410 HB 30 - Resistenza alla trazione 900-1,400 N/mm² Heat resisting nickel alloys - Hardness 270-410 HB 30 - Tensile strength 900-1,400 N/mm²				
	2.4631	Nimonic 80 A			Nimonic 80
	2.4632	Nimonic 90			
	2.4634	Nimonic 105			
	2.4662	Nimonic 901		HR 8	
	2.4668	Inconel 718		HR 401, 601	Rene 41
	2.4669	Inconel X-750			
	2.4670 LN	Nimocast 713			
	2.4674 LN	Nimocast PF 24			
	2.4856	Inconel 625			
	2.6554 LN	Waspaloy			

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
RAME - COPPER					
20	Rame puro - Durezza < 100 HB 30 - Resistenza alla trazione < 350 N/mm² Copper, unalloys - Hardness < 100 HB 30 - Tensile strength < 350 N/mm²				
2.0060	E - Cu 57				
2.0070	SE - Cu			Commercially Pure - Puro	
2.0090	SF - Cu		C 101		
2.1356	Cu Mn 3				
2.1522	Cu Si 2 Mn				
21	Leghe di rame a truciolo corto - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm² Short chip copper alloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²				
21.1 - Ottone - Brass					
2.0360	Cu Zn 40(Ms 60)				
2.0380	Cu Zn 39 Pb 2 (MS 58)		CZ120, CZ109		
2.0410	Cu Zn 44 Pb 2		PB104		
2.0561	Cu Zn 40 Al 1			2.1030, 2.1080	
2.0580	Cu Zn 40 Mn 1 Pb				
2.0771	Cu Ni 7 Zn 39 Mn 5 Pb3				
21.2 - Bronzo - Bronzes					
2.1086	G-Cu Sn 10 Zn				
2.1093	G-Cu Sn 6 Zn Ni				
2.1096	G-Cu Sn 5 Zn Pb				
22	Leghe di rame a truciolo lungo - Durezza < 200 HB 30 - Resistenza alla trazione < 700 N/mm² Long chip copper alloys - Hardness < 200 HB 30 - Tensile strength < 700 N/mm²				
22.1 - Ottone - Brass					
2.0250	Cu Zn 20				
2.0265	Cu Zn 30				
2.0321	Cu Zn 37		CZ108, CZ106		
2.0335	Cu Zn 36 (Ms 63)				
22.2 - Bronzo - Bronzes					
2.1020	Cu Sn 6				
2.1030	Cu Sn 8				
2.1080	Cu Sn 6 Zn 6				
22.3 - Leghe di rame temperato da forgiatura - Copper alloys tempered by forging					
2.1245	Cu Be 1.7				
2.1247	Cu Be 2				
2.1293	Cu Cr Zr				
23	Leghe di Cu - Al - Fe - Durezza < 440 HB 30 - Resistenza alla trazione < 1,500 N/mm² Cu - Al - Fe alloys - Hardness < 440 HB 30 - Tensile strength < 1,500 N/mm²				
23.1 - Ampco					
-----	Ampco 18			Ampco 18	
-----	Ampco 20		AB 1 Tipo - type		
-----	Ampco 25			Ampco 26	

STANDARD / STANDARDS

W.Nr.	GERMANY DIN	FRANCE AFNOR	GREAT BRITAIN B.S.	EN & OTHER CLASSIFICATION	U.S.A. AISI
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ALLUMINIO-MAGNESIO / ALUMINIUM-MAGNESIUM
**24 Leghe di alluminio - Magnesio - Durezza < 100 HB 30 - Resistenza alla trazione < 350 N/mm²
Aluminium- Magnesium, unalloys - Hardness < 100 HB 30 - Tensile strength < 350 N/mm²**

3.0250	Al 99.5 H				
3.0280	Al 99.8 H				
3.0305	Al 99.9				
3.3308	Al 99.9 Mg 0.5				

**25 Leghe di alluminio, Si <0,5% - Durezza < 180 HB 30 - Resistenza alla trazione < 600 N/mm²
Aluminium alloys, Si <0,5% - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²**
25.1 - Leghe di alluminio forgiato - Forging aluminium alloys

3.0515	Al Mn 1				
3.0516	S-Al Mn				
3.0525	Al Mn 1 Mg 0.5				
3.0615	Al Mg Si Pb				
3.1325	Al Cu Mg 1				
3.1355	Al Cu Mg 2				
3.3315	Al Mg 1				
3.3535	Al Mg 3				
3.4365	Al Zn Mg Cu 1.5				

25.2 - Fusione di leghe di alluminio - Cast aluminium alloys

3.1841	G - Al Cu 4 Ti				
3.3241	G - Al Mg 3 Si				
3.3292	GD - Al Mg 9				

**26 Leghe di alluminio, 0,5-10% Si - Durezza < 180 HB 30 - Resistenza alla trazione < 600 N/mm²
Aluminium alloys, 0,5-10% Si - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²**
26.1 - Fusioni di leghe di alluminio - Cast aluminium alloys

3.2134	G - Al Si 5 Cu 1 Mg				
3.2152	GD - Al Si 6 Cu 4				
3.2162	GD - Al Si 8 Cu 3				
3.2373	G - Al Si 9 Mg				

**27 Leghe di alluminio, Si>10% - Durezza < 180 HB 30 - Resistenza alla trazione < 600 N/mm²
Aluminium alloys, Si>10% - Hardness < 180 HB 30 - Tensile strength < 600 N/mm²**
27.1 - Fusioni di leghe di alluminio - Cast aluminium alloys

3.2381	G - Al Si 10 Mg				
3.2383	G - Al Si 10 Mg (Cu)				
3.2581	G - Al Si 12				
3.2583	G - Al Si 12 (Cu)				
3.2982	GD - Al Si 12 (Cu)				

27.2 - Fusioni di leghe di alluminio-magnesio - Cast aluminium-magnesium alloys

3.5106	G - Mg Ag 3 SE 2 Zr 1				
3.5662	G - Mg Al 6				
3.5812	G - Mg Al 8 Zn 1				
3.5912	G - Mg Al 9 Zn 1				

SOMMARIO - PROGRAM SUMMARY

TIPO TYPE	N	N	N	N	HR
TIPO DI FORO HOLE TYPE	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through
DESCRIZIONE DESCRIPTION	HSS Serie di 3 pezzi Tagli dritti Set of 3 pieces Straight flutes	HSS Serie di 3 pezzi Tagli dritti Filettatura sinistra Set of 3 pieces Straight flutes Left hand thread	HSS Serie di 2 pezzi Tagli dritti Set of 2 pieces Straight flutes	HSS Serie di 2 pezzi Tagli dritti Set of 2 pieces Straight flutes	HSS-E Serie di 3 pezzi Tagli dritti N. 1 con guida Set of 3 pieces Straight flutes No. 1 Pilot guide
FIGURA DEL MASCHIO FIGURE OF TOOLS					
CATEGORIA N. • CAT. - NO.	PRM100C	PRM101C	PRM100F	PRM100E	PRM170C
FILETTO • THREADS	M	M-LH	MF	G	M
DIMENSIONE • DIMENSIONS	DIN 352	DIN 352	DIN 2181	DIN 5157	DIN 352
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2/6H	-	ISO 2/6H
FORMA • CHAMFER	I / II / III	I / II / III	I / III	I / III	I / II / III
TRATTAMENTO • SURFACE					
PAGINA • PAGE	49	50	100	114	51

TIPO TYPE	N	N	N	N	N
TIPO DI FORO HOLE TYPE	Passante Through	Passante Through	Passante Through	Passante Through	Cieco Blind
DESCRIZIONE DESCRIPTION	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Elicoidale 20°R Spiral Fluted R20
FIGURA DEL MASCHIO FIGURE OF TOOLS					
CATEGORIA N. • CAT. - NO.	PRM200AB	PRM200BB	PRM530AB	PRM530BB	PRM250AC/BC
FILETTO • THREADS	M	M	M	M	M
DIMENSIONE • DIMENSIONS	DIN 371	DIN 376	DIN 371	DIN 376	DIN 371/376
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
FORMA • CHAMFER	B	B	B	B	C
TRATTAMENTO • SURFACE			TiN	TiN	
PAGINA • PAGE	52	53	54	55	56-57

SOMMARIO - PROGRAM SUMMARY

TIPO TYPE	N	N	N	N	N
TIPO DI FORO HOLE TYPE	Cieco Blind	Cieco Blind	Passante Through	Passante Through	Cieco Blind
DESCRIZIONE DESCRIPTION	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Elicoidale 40°R Spiral Fluted R40
FIGURA DEL MASCHIO FIGURE OF TOOLS					
CATEGORIA N. • CAT. - NO.	PRM600AC/BC	PRM030AC/BC	PRM201FB	PRM531FB	PRM601FC
FILETTO • THREADS	M	M	MF	MF	MF
DIMENSIONE • DIMENSIONS	DIN 371/376	DIN 371/376	DIN 374	DIN 374	DIN 374
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
FORMA • CHAMFER	C	C	B	B	C
TRATTAMENTO • SURFACE		TiN		TiN	
PAGINA • PAGE	58-59	60-61	101	102	103

TIPO TYPE	N	N	N	N	N
TIPO DI FORO HOLE TYPE	Cieco Blind	Passante Through	Passante Through	Passante Through	Passante Through
DESCRIZIONE DESCRIPTION	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed
FIGURA DEL MASCHIO FIGURE OF TOOLS					
CATEGORIA N. • CAT. - NO.	PRM301FC	PRM900AB/EB	PRM930AB/EB	PRM940EB	PRM960EB
FILETTO • THREADS	MF	UNC	UNF	W(BSW)	G(BSP)
DIMENSIONE • DIMENSIONS	DIN 374	DIN 371/376	DIN 371/374	DIN 2182/2183	DIN 5156
TOLLERANZA • TOLERANCE	ISO 2/6H	2 B	2 B	-	-
FORMA • CHAMFER	C	B	B	B	B
TRATTAMENTO • SURFACE	TiN				
PAGINA • PAGE	104	108-109	110-111	112-113	115

SOMMARIO - PROGRAM SUMMARY


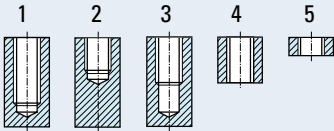
TIPO TYPE	N	N	N	HR	HR	HR
TIPO DI FORO HOLE TYPE	Cieco Blind	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Passante Through	Passante Through	Passante Through
DESCRIZIONE DESCRIPTION	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Maschi a rullare con canali di lubrificazione Cold Forming Taps with Oil Grooves	HSS-E Maschi a rullare con canali di lubrificazione Cold Forming Taps with Oil Grooves	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-PM Imbocco Corretto Gun Pointed
FIGURA DEL MASCHIO FIGURE OF TOOLS						New
CATEGORIA N. • CAT. - NO.	PRM970EC	PRM700AC/BC	PRM750AC/BC	PRM440AB/BB	PRM800AB/BB	PRM810AB/BB
FILETTO • THREADS	G(BSP)	M	M	M	M	M
DIMENSIONE • DIMENSIONS	DIN 5156	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
TOLLERANZA • TOLERANCE	-	ISO 2X/6HX	ISO 2X/6HX	ISO 2/6H	ISO 2/6H	ISO 2/6H
FORMA • CHAMFER	C	C	C	B	B	B
TRATTAMENTO • SURFACE		NI	TiN		TiAlN	
PAGINA • PAGE	116	86-87	88-89	62-63	64-65	66-67

TIPO TYPE	HR	HR	HR	VA	VA	VA
TIPO DI FORO HOLE TYPE	Cieco Blind	Cieco Blind	Cieco Blind	Passante Through	Passante Through	Passante Through
DESCRIZIONE DESCRIPTION	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-PM Elicoidale 40°R Spiral Fluted R40	HSS-E Imbocco Corretto Gun Pointed	HSS-E Imbocco Corretto Gun Pointed	HSS-PM Imbocco Corretto Gun Pointed
FIGURA DEL MASCHIO FIGURE OF TOOLS			New			New
CATEGORIA N. • CAT. - NO.	PRM450AC/BC	PRM460AC/BC	PRM820AC/BC	PRM080AB/BB	PRM090AB/BB	PRM910AB/BB
FILETTO • THREADS	M	M	M	M	M	M
DIMENSIONE • DIMENSIONS	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX
FORMA • CHAMFER	C	C	C	B	B	B
TRATTAMENTO • SURFACE	vap	TiAlN		vap	Hardlube	vap
PAGINA • PAGE	68-69	70-71	72-73	74-75	76-77	78-79

SOMMARIO - PROGRAM SUMMARY

TIPO TYPE	VA	VA	VA	VA	VA	VA
TIPO DI FORO HOLE TYPE	Cieco Blind	Cieco Blind	Passante Through	Cieco Blind	Cieco Blind	Cieco Blind
DESCRIZIONE DESCRIPTION	HSS-E Elicoidale 40°R Doppio Imbocco Spiral Fluted R40, Recessed Threads	HSS-E Elicoidale 40°R Doppio Imbocco Spiral Fluted R40, Recessed Threads	HSS-PM Elicoidale 40°R Spiral Fluted R40	HSS-E Imbocco Corretto Gun Pointed	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Elicoidale 40°R Spiral Fluted R40
FIGURA DEL MASCHIO FIGURE OF TOOLS			New 			New
CATEGORIA N. • CAT. - NO.	PRM620AC/BC	PRM630AC/BC	PRM920AC/BC	PRM081/FB	PRM640FC	PRM980EC
FILETTO • THREADS	M	M	M	MF	MF	G(BSP)
DIMENSIONE • DIMENSIONS	DIN 371/376	DIN 371/376	DIN 371/376	DIN 374	DIN 374	DIN 5156
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	-
FORMA • CHAMFER	C	C	C	B	C	C
TRATTAMENTO • SURFACE	vap	hardlube	vap	vap	vap	vap
PAGINA • PAGE	80-81	82-83	84-85	105	106	117

TIPO TYPE	AI	AI	GG	GG	GG	GG
TIPO DI FORO HOLE TYPE	Passante Through	Cieco Blind	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through	Cieco e Passante Blind & Through
DESCRIZIONE DESCRIPTION	HSS-E Imbocco Corretto Gun Pointed	HSS-E Elicoidale 40°R Spiral Fluted R40	HSS-E Tagli Diritti Straight Fluted	HSS-E Tagli Diritti Straight Fluted	HM Tagli Diritti Straight Fluted	HSS-E Tagli Diritti Straight Fluted
FIGURA DEL MASCHIO FIGURE OF TOOLS					New 	
CATEGORIA N. • CAT. - NO.	PRM300AB/BB	PRM360AC/BC	PRM720AC/BC	PRM740AC/BC	PRM760AC/BC	PRM320FC
FILETTO • THREADS	M-Az	M	M	M	M	MF
DIMENSIONE • DIMENSIONS	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 374
TOLLERANZA • TOLERANCE	ISO 2/6H	ISO 2/6H	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX	ISO 2X/6HX
FORMA • CHAMFER	B	C	C	C	C	C
TRATTAMENTO • SURFACE			NI	TICN		NI
PAGINA • PAGE	90-91	92-93	94-95	96-97	98-99	107


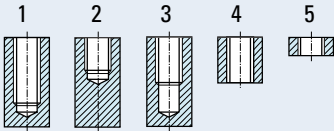
CONDIZIONI DI TAGLIO • CUTTING CONDITION		GRUPPI DI MATERIALI • MATERIAL GROUPS		
	USO / USE ● = RACCOMANDATO / RECOMMENDED ○ = ADATTO / SUITABLE	DIN 371/376	M	
		DIN 374	MF	
		DIN 371/376	UNC	
		DIN 371/374	UNF	
		DIN 2182/2183	W(BSW)	
		DIN 357/5156	G(BSP)	
		TRATTAMENTO SUPERFICIALE / RIVESTIMENTO • SURFACE TREATMENT / COATING		
		ANGOLO DELL'ELICA • SPIRAL FLUTE ANGLE		
		IMBOCCO SECONDO DIN 2197 • CHAMFER LEADING EDGE		
	1 2 3 4 5 	TIPO DI FORO HOLE TYPE		
REFRIGERANTE • HARDNESS A = OLIO DA TAGLIO • CUTTING OIL T = EMULSIONE DI OLIO • OIL EMULSION X = OLIO DA TAGLIO / EMULSIONE DI OLIO • CUTTING OIL / OIL EMULSION S = SECCO • DRY Z = SECCO / EMULSIONE DI OLIO • DRY / OIL EMULSION		DUREZZA HARDNESS	RESISTENZA TENSILE STRENGTH	TRUCIOLO CHIP
GRUPPI DI MATERIALI MATERIAL GROUPS	LISTA DEI MATERIALI LIST OF MATERIALS	HB	Rm m/mm ²	
ACCIAI STEELS	1 Acciai dolci magnetici • Magnetic soft steels	< 120	< 400	Extra Lungo • Extra Long
	2 Acciaio da costruz., acciaio da cementaz. • Structure steels, case carburizing steels	< 200	< 700	Medio/Lungo • Medium/Long
	3 Acciaio al carbonio trafilato • Plain carbon steels	< 250	< 850	Lungo • Long
	4 Acciaio legato • Alloy steels	< 250	< 850	Lungo • Long
	5 Acciai legati, temprati e Bonificati • Alloy steels/Hardened & Tempered steels	< 350	< 1,200	Lungo • Long
	6 Acciai legati, temprati e Bonificati • Alloy steels/Hardened & Tempered steels	> 350	> 1,200	Lungo • Long
ACCIAI INOX STAINLESS STEELS	7 Acciaio inox trafilato • Free machining	< 250	< 850	Medio • Medium
	8 Austenitico • Austenitic	< 250	< 850	Lungo • Long
	9 Ferritico, Ferritico+Austenitico, Martensitico • Ferritic, Ferritic+Austenitic, Martensitic	< 300	< 1,000	Lungo • Long
GHISA CAST IRON	10 Ghisa grigia • Grey cast irons	< 150	< 500	Extra Corto • Extra short
	11 Ghisa grigia • Grey cast irons	< 300	< 1,000	Extra Corto • Extra short
	12 Grafite nodulare, ghisa malleabile • Nodular graphite, Malleable cast irons	< 200	< 700	Corto • Short
	13 Grafite nodulare, ghisa malleabile • Nodular graphite, Malleable cast irons	< 300	< 1,000	Corto • Short
TITANIO TITANIUM	14 Titanio puro • Titanium, unalloyed	< 200	< 700	Extra Lungo • Extra Long
	15 Leghe di Titanio • Titanium, alloyed	< 270	< 900	Medio-Corto • Medium-Short
	16 Leghe di Titanio • Titanium, alloyed	< 350	< 1,250	Medio-Corto • Medium-Short
NICHEL NICKEL	17 Nichel puro • Nickel, unalloyed	< 150	< 500	Extra Lungo • Extra Long
	18 Leghe di Nichel • Nickel, alloyed	< 270	< 900	Lungo • Long
	19 Leghe di Nichel • Nickel, alloyed	< 350	< 1,250	Lungo • Long
RAME, OTTONE, BRONZO COPPER, BRASS, BRONZE	20 Rame puro • Copper, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	21 Ottone truciolo corto, bronzo, rame • Short chipping Brass, Bronze, Copper	< 200	< 700	Medio-Corto • Medium-Short
	22 Ottone truciolo lungo, bronzo, rame • Long chipping Brass, Bronze, Copper	< 200	< 700	Lungo • Long
	23 Cu-Al-Fe • AMPCO (Cu-Al-Fe alloys)	< 470	< 1,500	Corto • Short
ALLUMINIO ALUMINIUM	24 Alluminio, Magnesio non legato • Aluminium, Magnesium, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	25 Leghe di Alluminio • Aluminium, alloyed Si < 0.5%	< 150	< 500	Medio • Medium
	26 Leghe di Alluminio • Aluminium, alloyed Si < 10%	< 120	< 400	Medio-Corto • Medium-Short
	27 Leghe di Alluminio • Aluminium, alloyed Si < 10%	< 120	< 400	Corto • Short
MATERIALI SINTETICI SYNTHETIC MATERIALS	28 Termoplastici • Thermoplastics			Extra Lungo • Extra Long
	29 Plastica termoindurente • Thermosetting Plastics			Corto • Short
	30 Plastica rinforzata fibra • Reinforced plastic materials			Extra-Corto • Extra short



MACHINE TAPS










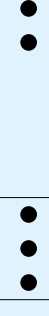
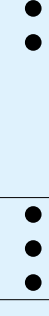
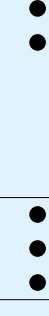
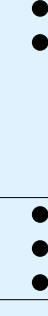
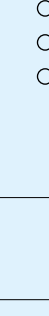
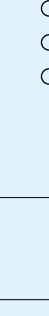
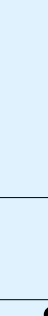
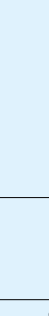
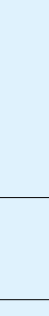
AL GROUPS		N	N	N	N	N	HR	HR	HR	HR	HR
Cat.-No.		PRM200	PRM530	PRM250	PRM600	PRM030	PRM440 PRM810	PRM800	PRM820	PRM450	PRM460
Cat.-No.		PRM201	PRM 531		PRM601	PRM301					
Cat.-No.		PRM900									
Cat.-No.		PRM930									
Cat.-No.		PRM940									
Cat.-No.		PRM960			PRM970						
FACE TREATMENT / COATING			TiN			TiN		TiAlN		vap	TiAlN
ANGLE				R20	R40	R40			R40	R40	R40
D ACC. DIN 2197		B	B	C	C	C	B	B	C	C	C
		4-5	4-5	4-5	1-2-3	1-2-3	4-5	4-5	1-2-3	1-2-3	1-2-3
VELOCITÀ DI TAGLIO	Refrigerante / Coolant										
CUTTING SPEED Vc m/min											
Maschi con rivestimenti TiN / TiCN / HARDLUBE / TiAlN la velocità di taglio Vc va raddoppiata With TiN / TiCN / TiAlN / HARDLUBE coated taps the cutting Vc speed can be doubled	25-20	T									
	15-20	T	●	●	●	●	●				
	12-18	T	●	●	●	●	●				
	10-15	X	●	●	●	●	●				
	6-10	X						○	○	○	○
	3-5	A						●	●	●	●
	7-10	A									
	5-8	A									
	4-6	A						○	○	○	○
	10-15	X									
	5-8	T									
	10-15	X	●	●	●	●	●				
	5-8	X	●	●	●	●	●				
	10-15	T	○	○	○	○	○				
	8-12	A									
	4-6	A									
	8-12	A	○	○	○	○	○				
	10-15	A									
	2-4	A									
	8-12	T	○	○	○	○	○				
25-35	T						○	○	○	○	
15-20	T	●	●	●	●	●					
3-5	A						●	●	●	●	
10-15	T	○	○	○	○	○					
25-35	T	○	○	○	○	○					
15-20	T	○	○	○	○	○					
10-15	T	●	●	●	●	●					
20-30	T	○	○	○	○	○					
8-12	Z						○	○	○	○	
5-7	Z						○	○	○	○	


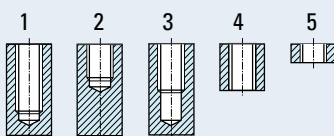
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CONDIZIONI DI TAGLIO • CUTTING CONDITION		GRUPPI DI MATERIALI • MATERIAL GROUPS		
	USO / USE ● = RACCOMANDATO / RECOMMENDED ○ = ADATTO / SUITABLE	DIN 371/376	M	
		DIN 374	MF	
		DIN 371/376	UNC	
		DIN 371/374	UNF	
		DIN 2182/2183	W(BSW)	
		DIN 357/5156	G(BSP)	
		TRATTAMENTO SUPERFICIALE / RIVESTIMENTO • SURFACE TREATMENT / COATING		
		ANGOLO DELL'ELICA • SPIRAL FLUTE ANGLE		
		IMBOCCO SECONDO DIN 2197 • CHAMFER LEADING EDGE		
	1 2 3 4 5 	TIPO DI FORO HOLE TYPE		
REFRIGERANTE • HARDNESS A = OLIO DA TAGLIO • CUTTING OIL T = EMULSIONE DI OLIO • OIL EMULSION X = OLIO DA TAGLIO / EMULSIONE DI OLIO • CUTTING OIL / OIL EMULSION S = SECCO • DRY Z = SECCO / EMULSIONE DI OLIO • DRY / OIL EMULSION		DUREZZA HARDNESS	RESISTENZA TENSILE STRENGTH	TRUCIOLO CHIP
GRUPPI DI MATERIALI MATERIAL GROUPS	LISTA DEI MATERIALI LIST OF MATERIALS	HB	Rm m/mm ²	
ACCIAI STEELS	1 Acciai dolci magnetici • Magnetic soft steels	< 120	< 400	Extra Lungo • Extra Long
	2 Acciaio da costruz., acciaio da cementaz. • Structure steels, case carburizing steels	< 200	< 700	Medio/Lungo • Medium/Long
	3 Acciaio al carbonio trafilato • Plain carbon steels	< 250	< 850	Lungo • Long
	4 Acciaio legato • Alloy steels	< 250	< 850	Lungo • Long
	5 Acciai legati, temprati e Bonificati • Alloy steels/Hardened & Tempered steels	< 350	< 1,200	Lungo • Long
	6 Acciai legati, temprati e Bonificati • Alloy steels/Hardened & Tempered steels	> 350	> 1,200	Lungo • Long
ACCIAI INOX STAINLESS STEELS	7 Acciaio inox trafilato • Free machining	< 250	< 850	Medio • Medium
	8 Austenitico • Austenitic	< 250	< 850	Lungo • Long
	9 Ferritico, Ferritico+Austenitico, Martensitico • Ferritic, Ferritic+Austenitic, Martensitic	< 300	< 1,000	Lungo • Long
GHISA CAST IRON	10 Ghisa grigia • Grey cast irons	< 150	< 500	Extra Corto • Extra short
	11 Ghisa grigia • Grey cast irons	< 300	< 1,000	Extra Corto • Extra short
	12 Grafite nodulare, ghisa malleabile • Nodular graphite, Malleable cast irons	< 200	< 700	Corto • Short
	13 Grafite nodulare, ghisa malleabile • Nodular graphite, Malleable cast irons	< 300	< 1,000	Corto • Short
TITANIO TITANIUM	14 Titanio puro • Titanium, unalloyed	< 200	< 700	Extra Lungo • Extra Long
	15 Leghe di Titanio • Titanium, alloyed	< 270	< 900	Medio-Corto • Medium-Short
	16 Leghe di Titanio • Titanium, alloyed	< 350	< 1,250	Medio-Corto • Medium-Short
NICHEL NICKEL	17 Nichel puro • Nickel, unalloyed	< 150	< 500	Extra Lungo • Extra Long
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	19 Leghe di Nichel • Nickel, alloyed	< 350	< 1,250	Lungo • Long
RAME, OTTONE, BRONZO COPPER, BRASS, BRONZE	20 Rame puro • Copper, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	21 Ottone truciolo corto, bronzo, rame • Short chipping Brass, Bronze, Copper	< 200	< 700	Medio-Corto • Medium-Short
	22 Ottone truciolo lungo, bronzo, rame • Long chipping Brass, Bronze, Copper	< 200	< 700	Lungo • Long
	23 Cu-Al-Fe • AMPCO (Cu-Al-Fe alloys)	< 470	< 1,500	Corto • Short
ALLUMINIO ALUMINIUM	24 Alluminio, Magnesio non legato • Aluminium, Magnesium, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	25 Leghe di Alluminio • Aluminium, alloyed Si < 0.5%	< 150	< 500	Medio • Medium
	26 Leghe di Alluminio • Aluminium, alloyed Si < 10%	< 120	< 400	Medio-Corto • Medium-Short
	27 Leghe di Alluminio • Aluminium, alloyed Si < 10%	< 120	< 400	Corto • Short
MATERIALI SINTETICI SYNTHETIC MATERIALS	28 Termoplastici • Thermoplastics			Extra Lungo • Extra Long
	29 Plastica termoindurente • Thermosetting Plastics			Corto • Short
	30 Plastica rinforzata fibra • Reinforced plastic materials			Extra-Corto • Extra short



MACHINE TAPS

FAMILY GROUPS		VA	VA	VA	VA	AI	AI	GG	GG	GG
Cat.-No.		PRM080 PRM910	PRM090	PRM620 PRM920	PRM630	PRM300	PRM360	PRM720	PRM740	PRM760
Cat.-No.		PRM081		PRM640				PRM320		
Cat.-No.										
Cat.-No.										
Cat.-No.				PRM980						
FACE TREATMENT / COATING		vap	Hardlube	vap	Hardlube			NI	TiCN	
ANGLE				R40	R40		R45/40			
STANDARD ACC. DIN 2197		B	B	C	C	B	C	C	C	C
		4-5	4-5	1-2-3	1-2-3	4-5	1-2-3	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
VELOCITÀ DI TAGLIO	Refrigerante / Coolant									
CUTTING SPEED										
Vc		m/min								
Maschi con rivestimenti TiN / TiCN / HARDLUBE / TiALN la velocità di taglio Vc va raddoppiata With TiN / TiCN / TiALN / HARDLUBE coated taps the cutting Vc speed can be doubled	25-20	T	●	●	●	●	○	○		
	15-20	T	●	●	●	●	○	○		
	12-18	T					○	○		
	10-15	X								
	6-10	X								
	3-5	A								
	7-10	A	●	●	●	●				
	5-8	A	●	●	●	●				
	4-6	A	●	●	●	●				
	10-15	X							●	●
	5-8	T							●	●
	10-15	X								●
	5-8	X								●
	10-15	T					○	○		
	8-12	A	○	○	○	○				
	4-6	A								
	8-12	A								
	10-15	A	○	○	○	○				
	2-4	A								
	8-12	T					●	●	○	●
25-35	T								●	
15-20	T								●	
3-5	A								●	
10-15	T					●	●			
25-35	T					●	●			
15-20	T					●	●			
10-15	T									
20-30	T									
8-12	Z							●	●	
5-7	Z							●	●	

CONDIZIONI DI TAGLIO • CUTTING CONDITIONS		GRUPPI DI MATERIALI • MATERIAL		
	USO / USE ● = RACCOMANDATO / RECOMMENDED ○ = ADATTO / SUITABLE	DIN 371/376	M	
		DIN 371/376	M (serie lunga)	
		DIN 228	G(BSP)	
		TRATTAMENTO SUPERFICIALE / RIVESTIMENTO SURFACE TREATMENT / COATING		
		ANGOLO DELL'ELICA • SPIRAL FLUTE ANGLE		
		IMBOCCO SECONDO DIN 2197 CHAMFER LEAD ACC. DIN 2197 TIPO DI FORO HOLE TYPE		
REFRIGERANTE • HARDNESS A = OLIO DA TAGLIO • CUTTING OIL T = EMULSIONE DI OLIO • OIL EMULSION X = OLIO DA TAGLIO / EMULSIONE DI OLIO • CUTTING OIL / OIL EMULSION S = SECCO • DRY Z = SECCO / EMULSIONE DI OLIO • DRY / OIL EMULSION		DUREZZA HARDNESS	RESISTENZA TENSILE STRENGTH	TRUCIOLO CHIP
GRUPPI DI MATERIALI	LISTA DEI MATERIALI	HB	Rm m/mm ²	
MATERIAL GROUPS	LIST OF MATERIALS			
ACCIAI STEELS	1 Acciai dolci magnetici • Magnetic soft steels	< 120	< 400	Extra Lungo • Extra Long
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	4 Acciaio legato • Alloy steels	< 250	< 850	Lungo • Long
	5 Acciai legati, temprati e Bonificati • Alloy steels/Hardened & Tempered steels	< 350	< 1,200	Lungo • Long
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ACCIAI INOX STAINLESS STEELS	7 Acciaio inox trafilato • Free machining	< 250	< 850	Medio • Medium
	8 Austenitico • Austenitic	< 250	< 850	Lungo • Long
	9 Ferritico, Ferritico+Austenitico, Martensitico • Ferritic, Ferritic+Austenitic, Martensitic	< 300	< 1,000	Lungo • Long
GHISA CAST IRON	10 Ghisa grigia • Grey cast irons	< 150	< 500	Extra Corto • Extra short
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TITANIO TITANIUM	14 Titanio puro • Titanium, unalloyed	< 200	< 700	Extra Lungo • Extra Long
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	18 Leghe di Nichel • Nickel, alloyed	< 270	< 900	Lungo • Long
	19 Leghe di Nichel • Nickel, alloyed	< 350	< 1,250	Lungo • Long
RAME, OTTONE, BRONZO COPPER, BRASS, BRONZE	20 Rame puro • Copper, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	21 Ottone truciolo corto, bronzo, rame • Short chipping Brass, Bronze, Copper	< 200	< 700	Medio-Corto • Medium-Short
	22 Ottone truciolo lungo, bronzo, rame • Long chipping Brass, Bronze, Copper	< 200	< 700	Lungo • Long
	23 Cu-Al-Fe • AMPCO (Cu-Al-Fe alloys)	< 470	< 1,500	Corto • Short
ALLUMINIO ALUMINUM	24 Alluminio, Magnesio non legato • Aluminum, Magnesium, unalloyed	< 100	< 350	Extra Lungo • Extra Long
	25 Leghe di Alluminio • Aluminum, alloyed Si < 0.5%	< 150	< 500	Medio • Medium
	26 Leghe di Alluminio • Aluminum, alloyed Si < 10%	< 120	< 400	Medio-Corto • Medium-Short
	27 Leghe di Alluminio • Aluminum, alloyed Si > 10%	< 120	< 400	Corto • Short
MATERIALI SINTETICI SINTETIC MATERIALS	28 Termoplastici • Thermoplastics			Extra Lungo • Extra Long
	29 Plastica termoindurente • Thermosetting Plastics			Corto • Short
	30 Plastica rinforzata fibra • Reinforced plastic materials			Extra-Corto • Extra short



MACHINE TAPS

GROUPS		N	N	N	N	N	VA	VA	VAX	VAX	VAX	HR	HR	TIH	GG	
Cat.-No.		PRM220HP	PRM550HP	PRM610HP	PRM040HP	PRM730HP	PRM060HP	PRM070HP	PRM650HP	PRM670HP	PRM790HP	PRM470HP	PRM480HP	PRM690HP	PRM710HP	
Cat.-No.		PRM570HP		PRM580HP											PRM590HP	
Cat.-No.							PRM985HP		PRM990HP						PRM995HP	
		VAP	TiN	VAP	TiN	TiN	VAP	HARDLUBE	VAP	HARDLUBE	TiN		TiCN	TiCN	Ni	
				38R	38R				38R	38R		15R	15R	15R		
		B	B	B	B	B	B	B	B	B	B	B	B	B	C	
		4-5	4-5	1-2-3	1-2-3	1-2-3 4-5	4-5	4-5	1-2-3	1-2-3	1-2-3 4-5	1-2-3	1-2-3	1-2-3	1-2-3 4-5	
	VELOCITÀ DI TAGLIO CUTTING SPEED Vc m/min	Refrigerante / Coolant														
		X	10/15	20/30	10/15	20/30	20/30					20/30				
		X	10/15	20/30	10/15	20/30	20/50			10/20	20/30	20/50				
		X	10/15	20/30	10/15	20/30	20/30			6/12	15/32	20/30				
		X					15/30			5/10	10/20	15/30	10/15	15/35		
		A											5/10	10/20		2/10
		X						1/8	6/15	2/10	6/15	6/12				
		X						3/8	6/15	2/10	6/15	8/12				
		X						3/8	6/15	2/10	6/15	8/12				
		X									15/30					10/20
		T									8/15					
		X								6/12	15/30			15/25		
		X									8/15			8/12		
		T														
		A													4/8	
	A													2/4		
	T/S							10/20			10/25			4/8		
	A													4/8		
	A													2/4		
	T/S							15/25		15/30	10/30					
	T/S									15/35						
	T/S								15/35	15/35	15/35					
	X								15/35	15/25						
	T/S									25/50			25/35			
	T/S		15/40		15/40					25/50	15/40				20/30	
	T/S		15/40		15/40					25/50	15/40					
	T/S										5/15					
	T										8/12					
	Z															
	Z															



PARAMETRI DI TAGLIO E DATI TECNICI



SPEED & FEED DATA AND CHARACTERISTICS



SCHNITTWERTE UND EIGENHEITEN

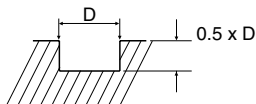
FRESE HSS-CO E ASP

HSS-CO AND ASP MILLS

HSS-CO UND ASP FRÄSER


FRESE 2 TAGLI PER CAVE, HSS-Co8, PR2xxx, PR2Lxxx
2 FLUTE FINISH SLOTTING, HSS-Co8 END MILLS, PR2xxx, PR2Lxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
	Durezza - Hardness	Resistenza - Strength	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	5600	40	4500	30	4000	30	2200	15	12000	160
3	3500	55	3200	45	2500	40	1600	20	11000	250
4	2800	70	2200	55	1800	45	1100	30	8000	290
5	2200	90	1800	70	1600	60	900	35	6300	310
6	1800	90	1600	80	1200	60	800	40	5600	310
8	1400	100	1100	90	900	70	560	45	4000	390
10	1100	100	900	90	800	80	450	45	3100	400
12	900	110	800	100	630	80	400	50	2500	380
14	800	110	700	90	560	80	350	50	2200	350
16	700	110	560	90	450	70	280	45	2000	350
18	630	100	500	90	400	70	250	45	1800	350
20	560	100	450	90	400	70	220	45	1600	320
22	500	100	450	90	350	70	220	45	1400	300
25	450	90	400	80	310	60	180	35	1200	280
28	400	80	350	70	280	55	160	30	1100	270
30	350	70	310	60	250	50	160	30	1100	270
32	350	70	280	55	220	45	140	30	1000	240
36	310	60	250	50	200	40	120	25	900	220
40	280	60	220	50	180	40	110	25	800	200

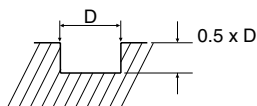


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 2 TAGLI PER CAVE, HSS-Co8, RIVESTITE FUTURA PR2xxxXT, PR2LxxxXT
2 FLUTE FINISH SLOTTING, HSS-Co8 END MILLS, FUTURA COATING PR2xxxXT, PR2LxxxXT

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	7300	50	6000	40	5000	40	2900	20	16000	210
3	4500	70	4200	60	3300	50	2100	25	14000	330
4	3600	90	2900	70	2300	60	1400	40	10000	380
5	2900	115	2300	90	2100	80	1200	45	8200	400
6	2300	115	2000	105	1600	80	1000	50	7300	400
8	1800	130	1400	115	1200	90	730	60	5000	510
10	1400	130	1200	115	1000	105	600	60	4000	520
12	1200	145	1000	130	800	105	500	65	3300	500
14	1000	145	900	115	700	105	450	65	2800	450
16	900	145	700	115	600	90	360	60	2600	450
18	800	130	650	115	500	90	320	60	2300	450
20	730	130	600	115	500	90	300	60	2100	420
22	650	130	600	115	450	90	280	60	1800	390
25	600	120	500	105	400	80	230	48	1600	320
28	500	105	450	90	350	70	210	40	1400	350
30	450	90	400	80	320	65	210	40	1400	350
32	450	90	360	70	280	60	180	40	1300	310
36	400	80	320	65	260	50	160	30	1200	280
40	360	80	280	65	230	50	140	30	1000	260

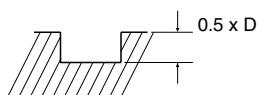


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 2 TAGLI, ASP PER CAVE, RIVESTITE NANO PRA2xxxNC
2 FLUTE, SHORT, SLOTTING, NANO COATING PRA2xxxNC

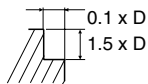
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciai da costruzione Acciai al carbonio Ghisa Structural Steels Carbon Steels Cast Irons		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels		Acciaio legati Acciai da utensili Acciai inox austenitici Alloy Steels Tool Steels Austenitic Stainless Steels	
	Durezza - Hardness	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc35		HRc35 ~ HRc40		
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1100 N/mm ²		1100 ~ 1300 N/mm ²	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	6700	100	5600	80	4700	85	3000	55	1900	35
3	4700	140	3900	120	3200	100	2200	70	1700	55
4	4100	200	3400	155	3000	140	1900	80	1500	65
5	3700	220	3100	175	2500	160	1600	90	1300	65
6	3300	230	2750	185	2200	165	1400	95	1100	75
8	2500	240	2100	210	1700	175	1100	100	850	75
10	2000	260	1700	230	1400	200	850	110	670	90
12	1700	240	1400	210	1100	180	700	100	550	75
14	1500	230	1200	200	950	170	600	95	480	70
16	1300	230	1100	185	850	155	530	90	420	70
18	1100	210	900	170	750	140	480	85	380	65
20	900	190	750	145	670	130	420	80	340	60
22	800	160	680	130	570	110	380	70	300	50
25	720	135	600	120	470	100	340	65	240	45



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI PER SPALLAMENTO, HSS-Co8 PR3xxx, PR3Gxxx
3 FLUTE FINISH SIDE CUTTING, HSS-Co8 END MILLS, PR3xxx, PR3Gxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	5600	60	4500	40	4000	35	2200	15	12000	180
3	3500	80	3200	60	2500	45	1600	20	11000	280
4	2800	105	2200	75	1800	50	1100	30	8000	330
5	2200	135	1800	95	1600	65	900	35	6300	350
6	1800	135	1600	110	1200	65	800	45	5600	350
8	1400	150	1100	120	900	80	560	50	4000	440
10	1100	150	900	120	800	90	450	50	3100	450
12	900	165	800	135	630	90	400	55	2500	430
14	800	165	700	120	560	90	350	55	2200	400
16	700	165	560	120	450	80	280	50	2000	400
18	630	150	500	120	400	80	250	50	1800	400
20	560	150	450	120	400	80	220	50	1600	360
22	500	150	450	120	350	80	220	50	1400	340
25	450	135	400	110	310	65	180	35	1200	420
28	400	120	350	95	280	60	160	30	1100	300
30	350	105	310	80	250	55	160	30	1100	300

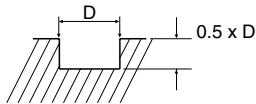


*L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%*

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI PER CAVE, HSS-Co8 PR3xxx, PR3Gxxx
3 FLUTE FINISH SLOTTING, HSS-Co8 END MILLS, PR3xxx, PR3Gxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	5600	60	4500	45	4000	45	2200	20	12000	240
3	3500	80	3200	65	2500	60	1600	30	11000	380
4	2800	105	2200	80	1800	65	1100	45	8000	440
5	2200	135	1800	105	1600	90	900	50	6300	470
6	1800	135	1600	120	1200	90	800	60	5600	470
8	1400	150	1100	135	900	105	560	65	4000	580
10	1100	150	900	135	800	120	450	65	3100	600
12	900	165	800	150	630	120	400	75	2500	570
14	800	165	700	135	560	120	350	75	2200	530
16	700	165	560	135	450	105	280	65	2000	530
18	630	150	500	135	400	105	250	65	1800	530
20	560	150	450	135	400	105	220	65	1600	480
22	500	150	450	135	350	105	220	65	1400	450
25	450	135	400	120	310	90	180	50	1200	420
28	400	120	350	105	280	80	160	45	1100	400
30	350	105	310	90	250	75	160	45	1100	400



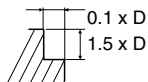
L'avanzamento nella serie lunga va ridotto del 50%.

The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI PER SPALLAMENTO, HSS-Co8, RIVESTITE FUTURA PR3xxxXT, PR3GxxxXT
3 FLUTE FINISH SIDE CUTTING, HSS-Co8 END MILLS, FUTURA COATING PR3xxxXT, PR3GxxxXT

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	7300	80	6000	50	5000	45	2900	20	16000	230
3	4500	105	4200	80	3300	60	2100	25	14000	360
4	3600	135	2900	95	2300	65	1400	40	10000	430
5	2900	175	2300	125	2100	85	1200	45	8200	450
6	2300	175	2000	145	1600	85	1000	60	7300	450
8	1800	195	1400	155	1200	105	730	65	5000	570
10	1400	195	1200	155	1000	115	600	65	4000	590
12	1200	215	1000	175	800	115	500	70	3300	560
14	1000	215	900	155	700	115	450	70	2800	520
16	900	215	700	155	600	105	360	65	2600	520
18	800	195	650	155	500	105	320	65	2300	520
20	730	195	600	155	500	105	300	65	2100	470
22	650	195	600	155	450	105	280	65	1800	440
25	600	175	500	145	400	85	230	45	1600	420
28	500	155	450	125	350	80	210	40	1400	390
30	450	135	400	105	320	70	210	40	1400	390

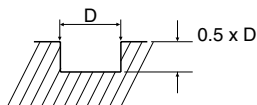


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI PER CAVE, HSS-Co8, RIVESTITE FUTURA PR3xxxXT, PR3GxxxXT
3 FLUTE FINISH SLOTTING, HSS-Co8 END MILLS, FUTURA COATING PR3xxxXT, PR3GxxxXT

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	7300	80	6000	60	5000	60	2900	25	16000	310
3	4500	105	4200	85	3300	80	2100	40	14000	500
4	3600	135	2900	105	2300	85	1400	60	10000	570
5	2900	175	2300	135	2100	115	1200	65	8200	610
6	2300	175	2000	155	1600	115	1000	80	7300	610
8	1800	195	1400	175	1200	135	730	85	5000	750
10	1400	195	1200	175	1000	155	600	85	4000	780
12	1200	215	1000	195	800	155	500	95	3300	740
14	1000	215	900	175	700	155	450	95	2800	690
16	900	215	700	175	600	135	360	85	2600	690
18	800	195	650	175	500	135	320	85	2300	690
20	730	195	600	175	500	135	300	85	2100	620
22	650	195	600	175	450	135	280	85	1800	580
25	600	175	500	155	400	115	230	65	1600	550
28	500	155	450	135	350	105	210	60	1400	520
30	450	135	400	115	320	95	210	60	1400	520

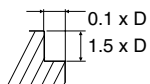


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI, ASP PER SPALLAMENTO, RIVESTITE NANO, PRA3xxxNC
3 FLUTE, STUB, SIDE CUTTING, NANO COATING, PRA3xxxNC

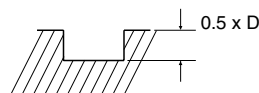
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciai da costruzione Acciai al carbonio Ghisa Structural Steels Carbon Steels Cast Irons		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels		Acciaio legati Acciai da utensili Acciai inox austenitici Alloy Steels Tool Steels Austenitic Stainless Steels	
	Durezza - Hardness	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc35		HRc35 ~ HRc40		
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1100 N/mm ²		1100 ~ 1300 N/mm ²	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	7800	85	6500	70	5200	55	3600	45	2300	35
3	5500	125	4600	105	3600	65	2600	55	2100	55
4	5000	160	4200	135	3300	95	2200	65	1800	65
5	4500	180	3800	155	2800	110	1900	75	1600	65
6	4000	260	3400	220	2500	165	1700	110	1400	90
8	3000	290	2500	240	1900	175	1250	120	1000	100
10	2400	300	2000	250	1500	185	1000	130	850	110
12	2000	310	1700	260	1300	200	850	130	700	110
14	1700	300	1400	250	1100	185	750	125	600	105
16	1500	290	1250	240	950	175	625	120	520	100
18	1300	270	1100	230	850	170	550	115	480	95
20	1200	260	1000	220	750	165	500	110	420	95
22	1100	270	900	230	700	170	450	115	380	95
25	950	290	800	240	600	185	400	120	340	105



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 3 TAGLI, ASP PER CAVE, RIVESTITE NANO PRA3xxxNC
3 FLUTE, SHORT, SLOTTING, NANO COATING PRA3xxxNC

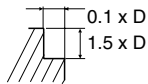
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciai da costruzione Acciai al carbonio Ghisa Structural Steels Carbon Steels Cast Irons		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels		Acciaio legati Acciai da utensili Acciai inox austenitici Alloy Steels Tool Steels Austenitic Stainless Steels	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC35		HRC35 ~ HRC40	
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1100 N/mm ²		1100 ~ 1300 N/mm ²	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	6200	60	5200	50	4600	40	2900	30	1800	25
3	4400	90	3700	75	3200	45	2100	40	1700	40
4	4100	120	3400	100	2900	70	1800	45	1450	50
5	3600	140	3000	115	2500	80	1600	55	1250	50
6	3200	200	2700	165	2200	120	1400	80	1050	65
8	2500	210	2100	180	1700	130	1100	90	850	75
10	2000	220	1700	185	1350	140	850	100	650	80
12	1700	240	1400	200	1150	150	700	100	550	80
14	1500	220	1300	190	950	140	630	95	480	75
16	1300	210	850	180	850	130	530	90	420	75
18	1100	210	850	170	750	130	480	85	380	70
20	900	200	750	165	670	120	420	80	340	70
22	800	200	700	170	570	130	380	85	300	75
25	720	210	600	180	470	140	340	90	240	75



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI PER SPALLAMENTO, HSS-Co8, PR4xxx, PR4Lxxx, PR4CMxxx
4 FLUTE, FINISH SIDE CUTTING, HSS-Co8 END MILLS, PR4xxx, PR4Lxxx, PR4CMxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
	Durezza - Hardness	Resistenza - Strength	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	5600	80	4500	55	4000	45	2200	20	12000	240
3	3500	110	3200	80	2500	60	1600	30	11000	380
4	2800	140	2200	100	1800	65	1100	45	8000	440
5	2200	180	1800	125	1600	90	900	50	6300	470
6	1800	180	1600	145	1200	90	800	60	5600	470
8	1400	200	1100	160	900	105	560	65	4000	580
10	1100	200	900	160	800	120	450	65	3100	600
12	900	200	800	180	630	120	400	75	2500	570
14	800	200	700	160	560	120	350	75	2200	530
16	700	220	560	160	450	105	280	65	2000	530
18	630	200	500	160	400	105	250	65	1800	530
20	560	200	450	160	400	105	220	65	1600	480
22	500	200	450	160	350	105	220	65	1400	450
25	450	180	400	145	310	90	180	50	1200	420
28	400	160	350	125	280	80	160	45	1100	400
30	350	140	310	110	250	75	160	45	1100	400
32	350	140	280	100	220	65	140	45	1000	360
36	310	120	250	90	200	60	120	35	900	330
40	280	120	220	90	180	60	110	35	800	300

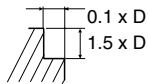


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI PER SPALLAMENTO, HSS-Co8, RIVESTITE FUTURA PR4xxxXT, PR4LxxxXT, PR4CMxxxXT
4 FLUTE, FINISH SIDE CUTTING, HSS-Co8 END MILLS, FUTURA COATING PR4xxxXT, PR4LxxxXT, 4CMxxxXT

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
	Durezza - Hardness		~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40		Resistenza - Strength	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	7300	105	600	70	5000	60	2900	25	16000	310
3	4500	145	4200	105	3300	80	2100	40	14000	500
4	3600	180	2900	130	2300	85	1400	60	10000	570
5	2900	235	2300	160	2100	115	1200	65	8200	610
6	2300	235	2000	190	1600	115	1000	80	7300	610
8	1800	260	1400	210	1200	135	730	85	5000	750
10	1400	260	1200	210	1000	155	600	85	4000	780
12	1200	285	1000	235	800	155	500	95	3300	740
14	1000	285	900	210	700	155	450	95	2800	690
16	900	285	700	210	600	135	360	85	2600	690
18	800	260	650	210	500	135	320	85	2300	690
20	730	260	600	210	500	135	300	85	2100	620
22	650	260	600	210	450	135	280	85	1800	580
25	600	235	500	190	400	115	230	65	1600	550
28	500	210	450	160	350	105	210	60	1400	520
30	450	180	400	145	320	95	210	60	1400	520
32	450	180	360	130	280	85	180	60	1300	470
36	400	155	320	120	260	80	160	45	1200	430
40	360	155	280	120	230	80	140	45	1000	390

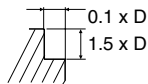


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI, ASP PER SPALLAMENTO, RIVESTITE NANO PRA4xxxNC
4 FLUTE, SHORT, SIDE CUTTING, NANO COATING PRA4xxxNC

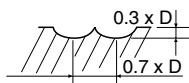
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciai da costruzione Acciai al carbonio Ghisa Structural Steels Carbon Steels Cast Irons		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels		Acciaio legati Acciai da utensili Acciai inox austenitici Alloy Steels Tool Steels Austenitic Stainless Steels	
	Durezza - Hardness	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc35		HRc35 ~ HRc40		
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1100 N/mm ²		1100 ~ 1300 N/mm ²	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
2	8800	250	8000	210	5800	150	3900	110	3200	75
3	6300	360	5700	300	4200	220	2800	155	2300	110
4	5000	420	4500	350	3400	260	2200	175	1900	130
5	4200	440	3800	370	2800	275	1900	190	1600	140
6	3700	470	3400	390	2500	285	1700	200	1400	155
8	3000	500	2500	420	1900	320	1300	210	1100	160
10	2200	550	2000	460	1500	330	1000	230	850	175
12	1900	500	1700	420	1300	320	850	210	690	160
14	1700	480	1500	400	1100	300	750	200	600	150
16	1550	440	1300	370	950	290	650	190	520	145
18	1400	400	1200	350	850	270	600	170	480	130
20	1200	380	1000	320	750	240	500	155	420	120
22	1000	360	900	280	650	200	450	140	380	115
25	950	320	800	265	600	200	400	130	340	110



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 2 TAGLI SEMISFERICHE, HSS-Co8, PR2Sxxx, PR2SLxxx
2 FLUTE, BALL NOSE, HSS-Co8 END MILLS, PR2Sxxx, PR2SLxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
	Durezza - Hardness	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40				
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
R 1.5 x 3.0	4500	95	3400	70	2000	30	1400	20	11000	230
R 2.0 x 4.0	3200	115	2400	80	1400	35	1000	25	8000	260
R 3.0 x 6.0	2200	135	1700	90	1000	45	700	25	5600	280
R 4.0 x 8.0	1600	160	1200	105	700	50	500	30	4000	350
R 5.0 x 10.0	1300	180	1000	120	560	60	400	35	3200	360
R 6.0 x 12.0	1000	170	800	105	450	55	320	35	2500	340
R 8.0 x 16.0	800	150	600	100	350	55	250	35	2000	300
R 10.0 x 20.0	600	140	500	85	300	50	200	35	1600	280
R 12.5 x 25.0	500	130	400	70	220	40	160	30	1300	250

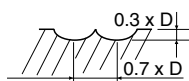


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.

FRESE 2 TAGLI SEMISFERICHE, HSS-Co8, RIVESTITE FUTURA, PR2SxxxXT, PR2SLxxxXT
2 FLUTE, BALL NOSE, HSS-Co8 END MILLS, FUTURA COATING, PR2SxxxXT, PR2SLxxxXT

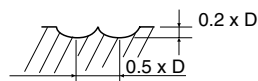
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
	Durezza - Hardness	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40				
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
R 1.5 x 3.0	6000	125	4400	90	2600	40	1800	25	14000	300
R 2.0 x 4.0	4000	150	3100	105	1800	45	1300	30	10000	340
R 3.0 x 6.0	3000	175	2200	115	1300	60	900	30	7300	360
R 4.0 x 8.0	2000	210	1600	135	900	65	650	40	5000	450
R 5.0 x 10.0	1700	235	1300	155	730	80	500	45	4000	470
R 6.0 x 12.0	1300	220	1000	135	600	70	400	45	3300	440
R 8.0 x 16.0	1000	200	800	130	450	70	300	45	2600	390
R 10.0 x 20.0	800	180	650	110	400	65	250	45	2000	360
R 12.5 x 25.0	650	170	500	90	300	50	200	40	1700	330



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 2 TAGLI SEMISFERICHE PER COPIATURA, RIVESTITE NANO, PRA2SxxxNC
2 FLUTE, BALL NOSE, PROFILING, NANO COATING, PRA2SxxxNC

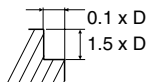
Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels	
	Durezza - Hardness		~ HRC20		HRc20 ~ HRc30		HRc30 ~ HRc40	
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²	
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
R 1.5 x 3.0	7000	300	5500	200	3700	110	1900	50
R 2.0 x 4.0	5700	370	4400	250	2900	140	1500	65
R 3.0 x 6.0	4200	420	3300	280	2200	155	1150	75
R 4.0 x 8.0	3200	460	2500	310	1700	175	850	75
R 5.0 x 10.0	2600	520	2000	350	1350	200	650	90
R 6.0 x 12.0	2200	460	1700	310	1150	175	550	75
R 8.0 x 16.0	1600	420	1250	280	850	155	420	70
R 10.0 x 20.0	1300	360	1000	240	650	130	340	60
R 12.5 x 25.0	900	270	700	180	450	100	240	45



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI SGROSSARE PER SPALLAMENTO, HSS-Co8, PR4SGxxx, PR4SGLxxx, PR4SCMxxx
4 FLUTE, SIDE CUTTING, ROUGHING, HSS-Co8 END MILLS, PR4SGxxx, PR4SGLxxx, PR4SCMxxx

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Leghe di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
6	1800	80	1600	60	1200	55	800	30	4500	200
8	1400	105	1100	75	900	65	560	35	3100	230
10	1100	150	900	120	800	110	450	60	2500	350
12	900	180	800	140	630	110	400	70	2000	400
14	800	180	700	140	560	110	350	70	1800	420
16	700	180	560	140	450	110	280	70	1600	450
18	630	180	500	140	400	110	250	70	1400	470
20	560	180	450	140	400	110	220	70	1200	500
22	500	220	450	170	350	140	220	85	1100	470
25	450	220	400	170	310	140	180	85	1000	450
28	400	210	350	160	280	130	160	85	900	510
30	350	210	310	160	250	130	160	85	900	530
32	350	210	280	160	220	130	140	85	800	500
36	310	210	250	160	200	130	120	85	700	470
40	280	200	220	150	180	120	110	80	630	450
50	220	200	180	170	160	140	90	80	500	370

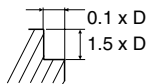


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI SGROSSARE PER SPALL., HSS-Co8, RIV. FUTURA, PR4SGxxxXT, PR4SGLxxxXT, PR4SCMxxxXT
4 FLUTE SIDE CUTTING, ROUGHING, HSS-Co8 END MILLS, FUTURA COATING, PR4SGxxxXT, PR4SGLxxxXT, PR4SCMxxxXT

Materiale da lavorare Material	Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Alluminio Lega di Alluminio Aluminium Aluminium Alloys	
Durezza - Hardness			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40			
Resistenza - Strength	~ 500 N/mm ²		500 ~ 800 N/mm ²		800 ~ 1000 N/mm ²		1000 ~ 1300 N/mm ²			
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed
6	2300	105	2000	80	1600	70	1000	40	6000	260
8	1800	135	1400	95	1200	85	700	45	4000	300
10	1400	195	1200	155	1000	145	600	80	3200	450
12	1200	235	1000	180	800	145	500	90	2600	520
14	1000	235	900	180	700	145	450	90	2300	550
16	900	235	700	180	600	145	350	90	2100	580
18	800	235	650	180	500	145	320	90	1800	610
20	700	235	600	180	500	145	300	90	1600	650
22	650	285	600	220	450	180	300	110	1400	610
25	600	285	500	220	400	180	230	110	1300	580
28	500	275	450	210	350	170	210	110	1200	660
30	450	275	400	210	320	170	210	110	1200	690
32	450	275	350	210	300	170	180	110	1000	650
36	400	275	320	210	250	170	150	110	900	610
40	350	260	300	195	230	155	140	105	800	280
50	300	260	230	220	200	180	120	105	650	480

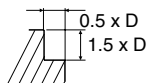


L'avanzamento nella serie lunga va ridotto del 50%.
The FEED, in long & extra long types, should be reduced by around 50%

RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.


FRESE 4 TAGLI, ASP SGROSSARE, PER SPALLAMENTO, RIVESTITE NANO, PRA4SGxxxNC
4 FLUTE, ROUGHING, SIDE CUTTING, NANO COATING, PRA4SGxxxNC

Materiale da lavorare Material	Acciai da costruzione Acciai al carbonio Ghisa Structural Steels Carbon Steels Cast Irons		Acciaio al Carbonio Acciai legati Acciai da utensili Carbon Steels Alloy Steels Tool Steels		Acciaio pretemprati Acciai legati Acciai da utensili Prehardened Steels Alloy Steels Tool Steels		Acciaio legati Acciai da utensili Acciai inox austenitici Alloy Steels Tool Steels Austenitic Stainless Steels		
	Durezza - Hardness	~ HRC20	Resistenza - Strength	~ 800 N/mm ²	HRC20 ~ HRC30	800 ~ 1000 N/mm ²	HRC30 ~ HRC35	1000 ~ 1100 N/mm ²	HRC35 ~ HRC40
Diametro - Diameter	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	RPM	Avanzam. Feed	
6	2700	200	2100	155	1500	100	1250	90	
8	2300	250	1800	200	1300	140	1000	110	
10	1800	360	1400	275	1000	170	850	140	
12	1500	360	1150	290	850	200	700	155	
14	1300	360	1000	290	720	200	600	155	
16	1150	360	900	290	625	200	520	155	
18	1000	360	850	290	580	200	470	155	
20	920	370	720	290	500	200	420	155	
22	850	370	620	290	450	200	380	155	
25	750	360	570	275	400	190	340	155	



RPM = Giri per min. / Revolution per min.
FEED/AVANZAMENTO = mm/min.

Member IMC Group
Ingersoll
Cutting Tools

TaeguTec
Member IMC Group

STARPLU

Direzione Generale e Sede Legale

Via Monte Grappa, 78 - 20020 Arese (MI)
Tel.: +39 02 99766700
Fax: +39 02 99766710

Unità locale Rivoli (TO)

Via Pavia, 11B - 10090 Cascine Vica - Rivoli (TO)
Tel.: +39 011 9588693 - 9015943
Fax: +39 011 9588291 - 9031563

Unità locale Conegliano (TV)

Viale Venezia, 50 - 31015 Conegliano (TV)
Tel.: +39 0438 453070 r.a.
Fax: +39 0438 453985

www.taegutec.it

info@taegutec.it

www.ingersol-imc.it

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