





BARRETTE CILINDRICHE RETTIFICATE

518



SFERE

520



INFORMAZIONI

521



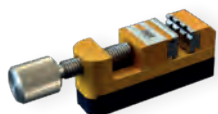
TAMPONI IN CARBURO

522



PALPATORI

524



MINI MORSA

525








BARRETTE CILINDRICHE RETTIFICATE  
IN CARBURO DI TUNGSTENO



D <sub>h5</sub>	L		MD nudo	D <sub>h5</sub>	L		MD nudo	D <sub>h5</sub>	L		MD nudo	D <sub>h5</sub>	L		MD nudo
0.30	30		201016	1.25	30		201067	2.70	61		200987	3.70	70		200964
0.35	30		200825	1.25	38		201072	2.70	102		200992	3.70	102		200879
0.40	30		200968	1.30	30		200916	2.75	102		201096	3.75	52		200838
0.45	30		200851	1.30	102	✓	200949	2.80	102		200872	3.80	55		201022
0.50	30		200912	1.40	102	✓	201055	2.85	102		201015	3.80	75		201040
0.50	38		200917	1.45	38		200982	2.90	61		200885	3.80	102		201005
0.55	30		200861	1.50	30		200975	2.90	102		200926	3.85	55		201044
0.55	38		200869	1.50	30	✓	323055	2.95	102		201097	3.90	55		201026
0.60	30		201064	1.50	32		981528	3.00	32		962285	3.90	75		200818
0.60	38		200976	1.50	40	✓	963071	3.00	38,5		960503	3.90	102		200804
0.65	30		200969	1.50	102		200961	3.00	46	✓	301757	3.95	55		200835
0.65	38		201069	1.55	102		38577	3.00	50	✓	977075	4.00	35		200938
0.70	30	✓	200913	1.60	102		201076	3.00	61	✓	201011	4.00	38,5		335046
0.70	38	✓	200918	1.70	43		200884	3.00	102	✓	200960	4.00	42		201054
0.75	30	✓	200970	1.70	102		201032	3.05	102	✓	200824	4.00	51	✓	332349
0.75	38		200865	1.80	46		201050	3.10	65		201053	4.00	55	✓	200833
0.80	30	✓	200862	1.80	102		200870	3.10	102		201079	4.00	62	✓	201017
0.80	38	✓	200977	1.85	102		46203	3.15	102		201019	4.00	75	✓	200817
0.80	102		200950	1.90	46		200948	3.175	30		303056	4.00	102		200857
0.85	30	✓	201065	1.90	102		200852	3.175	38		201010	4.05	55	✓	200889
0.85	38	✓	200978	2.00	25		201058	3.175	102	✓	966109	4.10	55		201024
0.90	30		200914	2.00	32		200988	3.20	65	✓	200854	4.10	75		201094
0.90	38	✓	200919	2.00	38		200986	3.20	102		200993	4.10	102		200874
0.95	30	✓	200971	2.00	38	✓	323064	3.25	102		200956	4.15	55		201104
0.95	38	✓	201070	2.00	102		201057	3.30	65		200897	4.20	55		201085
1.00	30	✓	201066	2.10	102		200925	3.30	102		200927	4.20	75		200830
1.00	30		323054	2.15	40		201013	3.35	102		200887	4.20	102		201098
1.00	32	✓	981529	2.20	53		200954	3.40	52		200836	4.25	55		201100
1.00	38		200979	2.20	102		201077	3.40	70		200924	4.25	102		973861
1.00	70		391314	2.30	53		200856	3.40	102		201080	4.30	58		201001
1.00	102		200907	2.30	102		200871	3.45	52		200941	4.30	80		201062
1.05	30		200972	2.35	102		47709	3.50	40		200859	4.30	102		200827
1.05	38		200866	2.40	57		201075	3.50	52		201025	4.35	58		200939
1.10	30		200915	2.40	102		200899	3.50	70		201060	4.40	58		201036
1.10	38		200920	2.45	102		46772	3.50	102		200873	4.40	102		201018
1.10	102		200902	2.50	32		201078	3.55	52		200837	4.45	58		200831
1.15	30		200863	2.50	43	✓	323057	3.60	52		201034	4.50	50	✓	312849
1.15	38		201071	2.50	102		200906	3.60	70		200908	4.50	58		200798
1.20	30		200973	2.60	57		200959	3.60	102		200994	4.50	80		200900
1.20	38		200980	2.60	102		200991	3.65	52		201103	4.50	102		200909
1.20	102		200947	2.65	102		38733	3.70	52		200890				

**BARRETTE CILINDRICHE RETTIFICATE  
IN CARBURO DI TUNGSTENO**

D <sub>h5</sub>	L		MD nudo	D <sub>h5</sub>	L		MD nudo	D <sub>h5</sub>	L		MD nudo
4.55	58		201027	6.00	66	✓	10665	10.00	67		335048
4.60	58		200877	6.00	66	✓	200832	10.00	72	✓	49215
4.60	80		201059	6.00	75		201082	10.00	73		332053
4.60	102		200828	6.00	81		975718	10.00	75		201083
4.65	58		200839	6.00	93		200883	10.00	90		200807
4.70	58		201086	6.00	102		200958	10.00	102		200945
4.70	102		201099	6.10	70		200898	10.00	133		200812
4.75	58		201020	6.10	102		200892	10.20	89		968835
4.80	62		200799	6.20	70		200911	10.20	133		200808
4.80	86		200819	6.20	102		201048	10.50	89		200810
4.80	102		201042	6.30	70		201051	10.50	133		201009
4.85	62		200840	6.30	102		200845	11.00	75		200998
4.90	62		200928	6.35	63		201056	11.00	102		200849
4.90	86		201041	6.35	76		200933	11.00	142		200813
4.90	102		200829	6.40	70		200967	11.50	102		201035
4.95	62		200891	6.40	102		201047	11.50	142	✓	201092
5.00	62		201002	6.50	70		200943	12.00	74	✓	333502
5.00	75		200996	6.50	102		200944	12.00	84		960550
5.00	86		200850	6.60	70		201081	12.00	102		200894
5.00	102		200962	6.60	102		201052	12.00	110		200905
5.10	62		200931	6.70	70		201063	12.00	151		201039
5.10	86		201012	6.70	102		201030	12.50	102		201090
5.10	102		200844	6.80	74		200997	12.50	151		200814
5.20	62		200800	6.80	109		966959	12.70	76		200999
5.20	86		200963	6.90	75		201061	13.00	75		201006
5.20	102		200952	6.90	109		200951	13.00	102		200876
5.30	62		201087	7.00	60		200805	13.00	151		200882
5.30	86		200858	7.00	75		200929	13.50	107		201028
5.30	102		200878	7.00	109		200895	14.00	75	✓	200930
5.40	66		200942	7.20	75		200881	14.00	76	✓	960552
5.40	93		200953	7.50	74		201031	14.00	84		960551
5.40	102		200955	7.50	109		200811	14.00	107		200888
5.50	66		200801	7.80	79	✓	200806	14.00	152		201045
5.50	102		200848	8.00	63,5	✓	960546	14.00	160		201093
5.60	66		201043	8.00	75		396289	15.00	75		200880
5.60	102		200932	8.00	79	✓	201007	15.00	111	✓	200935
5.70	66		201003	8.00	102		200893	16.00	83	✓	335049
5.70	102		200802	8.00	117		200934	16.00	92		49217
5.80	66		201004	8.50	79		200965	16.00	102		201000
5.80	102		201088	8.50	117		967426	16.00	120		201105
5.90	66		200803	8.80	84		201038	16.00	152	✓	201029
5.90	102	✓	201037	9.00	67		201008	18.00	93		960557
6.00	32	✓	994215	9.00	84		200995	18.00	125		200842
6.00	42	✓	962222	9.00	102		201046	18.00	152	✓	200843
6.00	50,5	✓	960544	9.00	125		200946	20.00	105		960558
6.00	55	✓	332354	9.50	84		200826	20.00	130		200816
6.00	57		960545	9.50	125	✓	201091	20.00	152	✓	201106
								25.00	105		955903

**DIXI 6820****SFERE DI PRECISIONE  
IN CARBURO DI TUNGSTENO**

[mm]	inches	MD nudo
0.500		11330
0.600		12684
0.700		11331
0.7938	1/32"	13962
0.800		11332
1.000		11333
1.100		14065
1.1906	3/64"	12735
1.200		12739
1.500		11336
1.5875	1/16"	13617
1.750		11337
2.000		11338
2.3815	3/32"	13963
2.500		11339
2.750		12786
2.7781	7/64"	12788
3.000		11340
3.175	1/8"	11328
3.200		12602
3.500		11341
3.750		12825

[mm]	inches	MD nudo
5.500		12226
3.9685	5/32"	13964
4.000		11342
4.500		11343
4.762	3/16"	13586
5.000		11344
5.500		12226
5.5565	7/32"	13965
6.000		11345
6.350	1/4"	13957
6.500		10496
7.000		11346
7.1438	9/32"	13966
7.500		11347
7.9370	5/16"	13535
8.000		11348
8.500		13956
8.7315	11/32"	12920
9.000		11349
9.525	3/8"	13959
10.000		11350
11.000		11351

[mm]	inches	MD nudo
11.112	7/16"	13536
15.000		12226
12.000		12671
12.700	1/2"	13550
14.000		12673
14.287	9/16"	12985
15.000		11352
15.081	19/32"	13983
15.875	5/8"	13960
16.000		12674
16.6688	21/32"	22063
17.000		12675
17.462	11/16"	13961
18.000		12676
19.050	3/4"	13958
20.000		12678
21.431	27/32"	28751
22.000		14179
23.000		13038
24.000		13012
25.000		13639
25.400	1"	11017

**DIXI 6961****SFERE DI PRECISIONE AL<sub>2</sub>O<sub>3</sub> - SIC**

[mm]	inches	CERAMICA
1.50		19035
3.00		19036
3.175	1/8"	21267
4.00		19037
4.50		15864
5.00		22280

[mm]	inches	CERAMICA
7.00		28995
8.00		28994
10.00		29401
11.00		59670
12.00		37932

## SFERE DI PRECISIONE IN RUBINO / ZAFFIRO



[mm]	inches	RUBINO
0.50		31368
0.70		19603
0.7931	1/32"	23153
0.80		17774
1.00		13996
1.1906	3/64"	30249
1.20		29360
1.50		13997
1.585	1/16"	19626
1.75		21380

[mm]	inches	RUBINO
2.00		13998
2.381	3/32"	19023
3.00		14048
3.175	1/8"	16644
4.00		14063
5.00		14811
6.00		16320
6.35	1/4"	17706
7.00		17211
8.00		15716

[mm]	inches	RUBINO
1.00		13859
1.50		19024
1.5875	1/16"	60423
2.00		15144
2.50		19025
3.00		13282
3.175	1/8"	17052
4.00		16962

## SFERE

CARATTERISTICHE DEI MATERIALI  
UTILIZZATI

	Carburo di tungsteno	Rubino / Zaffiro	Ceramica	Carburo di silicio
Composizione	94 WC+6 Co	Al <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	SiC
Peso specifico	14.90	3.98	3.90	3.1
Durezza HV 50	1700	-	-	2500
Durezza Knoop	-	1800/2200	2000	-
Modulo d'elasticità E (kN/mm <sup>2</sup> )	640	420	350	400
Resistenza alla compressione (kN/mm <sup>2</sup> )	5.7	2.1	2.4	4.1
Resistenza alla trazione (kN/mm <sup>2</sup> )	1.7	0.019	0.025	0.4
Punto di ammorbidimento (°C)	600	1800	1725	1400
Punto di fusione (°C)	2600	2050	2050	1900
Dilatazione termica (10 <sup>-6</sup> /°C)	5	5.3-6.2	6.6	4.3
Calore specifico (j/g/°C)	0.20	0.043	0.06	0.8
Porosità	pori	nulla	pori	pori
Resistenza agli acidi	relativa	infinita	infinita	eccellente
Resistenza agli alcalini	relativa	infinita	infinita	eccellente

TAMPONI LISCI  
IN CARBURO

DIXI 0420 ( $\pm 0.5\mu\text{m}$ )



$D_1 \pm 0.0005$	$L_1$
0.100 - 0.199	1.50
0.200 - 0.299	2.00
0.300 - 0.499	3.50
0.500 - 1.499	5.00
1.500 - 1.950	6.00
1.951 - 3.499	8.00
3.500 - 3.999	10.00

Standard ogni 0.001mm  
Disponibili entro 72h (Ticino)

DIXI 0421 ( $\pm 1.0\mu\text{m}$ )



$D_1 \pm 0.001$	$L_1$
0.10 - 0.19	1.50
0.20 - 0.29	2.00
0.30 - 0.49	3.50
0.50 - 1.49	5.00
1.50 - 1.95	6.00
1.96 - 3.49	8.00
3.50 - 3.99	10.00

A magazzino ogni 0.01mm



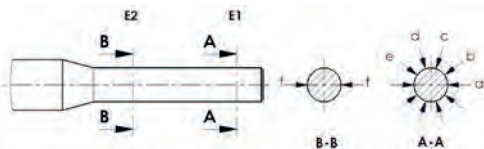
Prodotti disponibili con un protocollo di controllo interno o eseguito da un laboratorio esterno

PROTOCOLE DE CONTRÔLE  
DIAMÈTRE DE TAMPON LISSE



Certificat N° : ..... N/C Page 1 sur 1  
 Date de mesure : ..... 15.08.2016  
 Client : ..... N/C  
 Objet : ..... Tampon lisse  
 Article : ..... 309161  
 Description : ..... DIXI 0420 Ø 1.000 ± 0.5 μm L1= 5 D= 3 L= 38 SP  
 Echantillon N° : ..... ZZ99

Ø nominal (mm)	Tolérance inférieure (μm)	Tolérance supérieure (μm)	Ø mesuré (mm)	Ecart (mm)	Remarque
1.0000	-0.5	+0.5	1.0001	+0.0001	E1-a
1.0000	-0.5	+0.5	1.0002	+0.0002	E1-b
1.0000	-0.5	+0.5	0.9999	-0.0001	E1-c
1.0000	-0.5	+0.5	0.9998	-0.0002	E1-d
1.0000	-0.5	+0.5	1.0002	+0.0002	E1-e
1.0000	-0.5	+0.5	1.0001	+0.0001	E2-f



Instrument de mesure : ..... Banc de mesure horizontal (inv. N° BM040)  
 Méthode de mesure : ..... Entre touches plates  
 Instruction de contrôle N° : ..... N/C  
 Incertitude de mesure : ..... 0.4μm  
 Température : ..... 20 °C  
 Traçabilité : ..... ISO 9001:2008

Résultat de la mesure : ..... Opérationnel

Le Locle, le 15.08.2016

Date / Lieu

*[Signature]*  
Opérateur

DIXI Polytool S.A.  
ISO 9001:2008  
ISO 14001:2004

Av. du Technicum 37  
CH-2400 Le Locle  
dixipoly@dixi.ch

Tel. +41 (0)32 933 54 44  
Fax +41 (0)32 933 89 16  
www.dixipolytool.com



Contattaci per qualsiasi composizione di set

SET 50 PEZZI

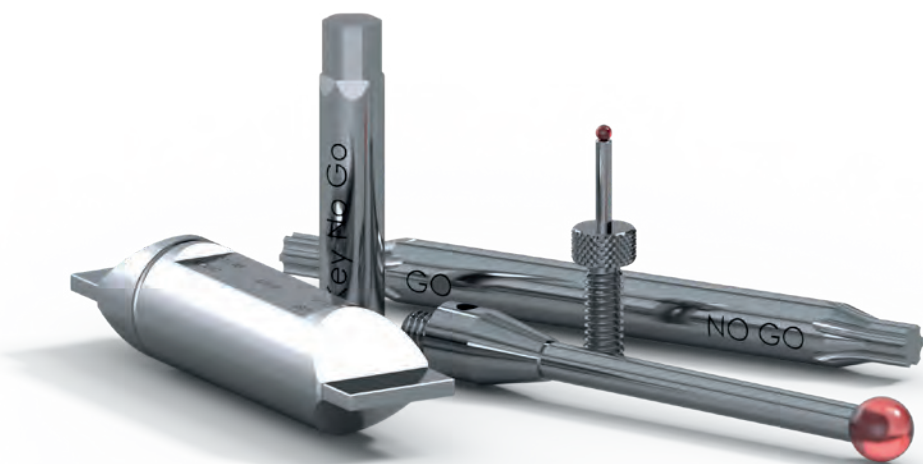


SET 100 PEZZI









Il materiali utilizzati dalla DIXI per la costruzione dei palpatori sono in funzione del loro impiego, come pure la geometria delle superficie di contatto con il pezzo da misurare.

- Inerzia minima
- Flessione minima
- Resistenza all'usura
- Geometria specifica
- Precisione

Dimensioni, diametri e materiali devono essere precisati al momento dell'ordine.

## TASTATORI IN CARBURO DI TUNGSTENO MONOBLOCCO

Per garantire la massima precisione, i tastatori DIXI 4 sono rettificati perfettamente e la loro planarità è compresa in tolleranze molto strette.

Pezzi d'usura sono inoltre disponibili in PCD o CBN.

Le dimensioni e tolleranze devono essere precisati al momento dell'ordine.



## MINIMORSA DI PRECISIONE

Questa minimorsa è un concentrato di soluzioni che rispondono alle nostre esigenze quotidiane finalizzate ad assicurare la massima qualità e conformità dei nostri prodotti.

- compatta, molto maneggevole e facile da usare
- utilizzabile su tutti gli apparecchi di misura
- orientabile a **360°**

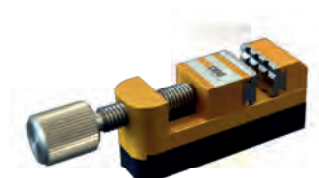
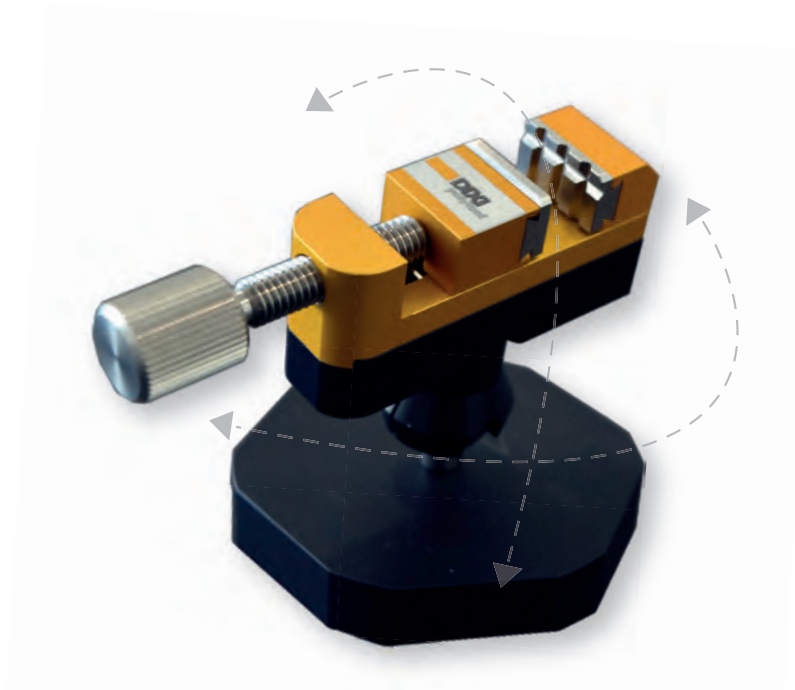
### SERIE SUPPLEMENTARE DI 2 GANASCE INOX O DELRIN

Una ganasca liscia  
Una ganasca con tacche  
Dimensioni 15 x 3 x 8 mm

### Morsa in alluminio anodizzato, fornita con serie di ganasce inox incluse

art : 369645

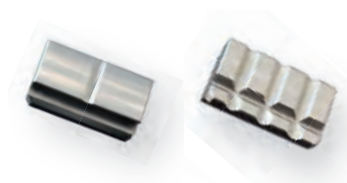
- dimensioni 15 x 15 x 76
- capacità di serraggio 15.5 mm



### Serie supplementare di 2 ganasce INOX

art : 381484

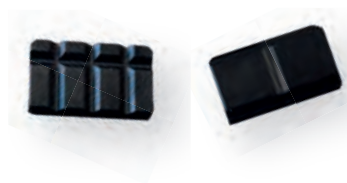
- una ganasca liscia e una ganasca con tacche
- dimensioni 15 x 3 x 8



### Serie supplementare di 2 ganasce Delrin

art : 381485

- una ganasca liscia e una ganasca con tacche
- dimensioni 15 x 3 x 8



### Support orientable clipsable

art : 367295

- dimensions 50 x 37 mm







M3.00x0.50 H6 NO 60  
976722 - 02.02.7787

S1.40x0.30 H6/H8 60

CO ON S4.14 17 02.04.08.05

SIMBOLI E INFORMAZIONI **528**

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TABELLA DELLE TOLLERANZE **530**

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TABELLA DELLE DUREZZE **531**

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TABELLA DELLE RUGOSITÀ **532**

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SERVIZI **533**

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CAMPI DI APPLICAZIONE DEI RIVESTIMENTI **534**

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GRUPPI DEI MATERIALI ED ESEMPI **536**

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INDICE DEGLI UTENSILI **546**

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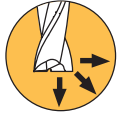
# SIMBOLI



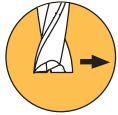
Consigli per l'impiego



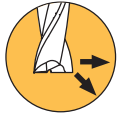
Condizioni di lavoro



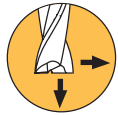
Utilizzabile in tutte le direzioni



Solo contornatura



Contornatura e in rampa



Contornatura e in rampa



Norme DIN



Norme ISO



Norme DIXI



Troncatura



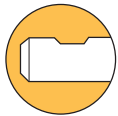
Esecuzione cave



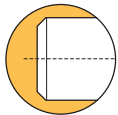
Heliche variabile



Passo differenziato



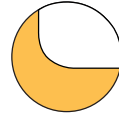
Con piatto di bloccaggio



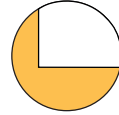
Con smusso



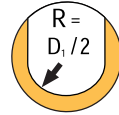
Smusso



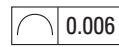
Raggio



Spigolo vivo



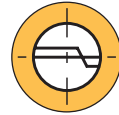
Tolleranze del raggio



Tolleranza della forma del raggio



Riduzione del nocciolo



Tagliante al centro



Tagliante al centro per  $\varnothing > \dots$



Senza tagliante al centro



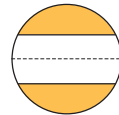
Senza lubrificazione



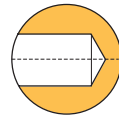
Con fori di lubrificazione



Con fori di lubrificazione



Per foro passante



Per foro cieco

**P M H K S N**

Gruppo di materiale

**>1500 N/mm<sup>2</sup>**

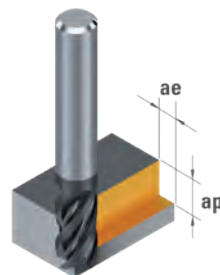
Durezza del materiale



## INFORMAZIONI

### Materiali da taglio

	□	Carburo di tungsteno
<b>PCD</b>	●	Diamante policristallino
<b>CVD</b>	■	Diamante policristallino CVD
<b>DIA</b>	◆	Diamante monocristallino
<b>CBN</b>	▲	Diamante polycristallin CBN



### Rivestimenti

<b>TiAIN</b>	■	Con rivestimento TiAIN
<b>DICUT</b>	■	Con rivestimento DICUT
<b>XIDUR</b>	■	Con rivestimento XIDUR
<b>C-TOP</b>	■	Con rivestimento C-TOP
<b>CUTINOX</b>	■	Con rivestimento CUTINOX
<b>DAC</b>	■	Con rivestimento DAC
<b>DIXAL</b>	■	Con rivestimento DIXAL
<b>DLC</b>	■	Con rivestimento DLC
<b>DIAMANT</b>	■	Con rivestimento diamante
<b>DINAC</b>	■	Con rivestimento DINAC
<b>DI-TOP</b>	■	Con rivestimento DI-TOP
<b>DRYCUT</b>	■	Con rivestimento DRYCUT
<b>POLYCUT</b>	■	Con rivestimento POLYCUT

<b>Z</b>	Numero di taglienti
<b>Vc</b>	Velocità di taglio [m/min]
<b>f</b>	Avanzamento/giro [mm/giro]
<b>Vf</b>	Avanzamento in [mm/min]
<b>n</b>	Velocità di rotazione [giri/min]
<b>ap</b>	Profondità di taglio
<b>ae</b>	Larghezza del passaggio
<b>Rm</b>	Resistenza alla trazione [N/mm <sup>2</sup> ]
<b>fz</b>	Avanzamento/dente [mm]
<b>R</b>	Tagliente a destra
<b>L</b>	Tagliente a sinistra
<b>P.</b>	Pagina

### TIPI DI REFRIGERAZIONE

		<b>-HH</b>	Fori elicoidali	Punte elicoidali Frese elicoidali	DIXI 1145-HH
		<b>-SH</b>	Fori dritti	Frese dentatura dritta	DIXI 72420-SH
		<b>-TC</b>	Foro centrale	Alesatori in carburo	POLY 4001-TC
		<b>-FC</b>	Fori dritti - uscita radiale	Frese cilindriche con refrigerazione nelle gole (dei taglienti)	DIXI 7563-FC
		<b>-PH</b>	Scanalatura periferico	Micro-frese	DIXI 1738-PH
		<b>-SC</b>	Scanalatura di refrigerazione	Frese dentatura dritta Alesatori in carburo	POLY 4005-SC

TABELLA DELLE TOLLERANZE



[μm]

[mm]	D10	E9	F7	F8	G7	G9	H6	H7	H8	H9	H10	H11	H12	H13	JS7	JS9	K6	K7	M6	M7	N7	N9	P7	P9
- 3	+60 +20	+39 +14	+16 +6	+20 +6	+12 +2	+27 +2	+6 0	+10 0	+14 0	+25 0	+40 0	+60 0	+100 0	+140 0	±5	±125	0 -6	0 -10	-2 -8	-2 -12	-4 -14	-4 -29	-6 -16	-6 -31
3 > Ø ≥ 6	+78 +30	+50 +20	+22 +10	+28 +10	+16 +4	+34 +4	+8 0	+12 0	+18 0	+30 0	+48 0	+75 0	+120 0	+180 0	±6	±15	+2 -6	+3 -9	-1 -9	0 -12	-4 -16	0 -30	-8 -20	-12 -42
6 10	+98 +40	+61 +25	+28 +13	+35 +13	+20 +5	+41 +5	+9 0	+15 0	+22 0	+36 0	+58 0	+90 0	+150 0	+220 0	±7.5	±18	+2 -7	+5 -10	-3 -12	-0 -15	-4 -19	0 -36	-9 -24	-15 -51
10 18	+120 +50	+75 +32	+34 +16	+43 +16	+24 +16	+49 +6	+11 0	+18 0	+27 0	+43 0	+70 0	+110 0	+180 0	+270 0	±9	±21.5	+2 -9	+6 -15	-4 -17	0 -21	-7 -28	0 -52	-14 -35	-22 -74
18 30	+149 +65	+92 +40	+41 +20	+53 +20	+28 +7	+59 +7	+13 0	+21 0	+33 0	+52 0	+84 0	+130 0	+210 0	+330 0	±10.5	±26	+2 -11	+6 -15	-4 -17	0 -21	-7 -28	0 -52	-14 -35	-22 -74
30 50	+180 +80	+112 +50	+50 +25	+64 +25	+34 +9	+71 +9	+16 0	+25 0	+39 0	+62 0	+100 0	+160 0	+250 0	+390 0	±12.5	±31	+3 -13	+7 -18	-4 -20	0 -25	-8 -33	0 -62	-17 -42	-26 -88
50 80	+220 +100	+134 +60	+60 +30	+76 +30	+40 +10		+19 0	+30 0	+46 0	+74 0	+120 0	+190 0	+300 0	+460 0	±15	±37	+4 -15	+9 -21	-5 -24	0 -30	-9 -39	0 -74	-21 -51	-32 -106
80 120	+260 +120	+159 +72	+71 +36	+90 +36	+47 +12		+22 0	+35 0	+54 0	+87 0	+140 0	+220 0	+360 0	+540 0	±17.5	±43.5	+4 -18	+10 -15	-6 -28	0 -35	-10 -45	0 -87	-24 -59	-37 -124
120 180	+305 +145	+185 +85	+83 +43	+106 +43	+54 +14		+25 0	+40 0	+63 0	+100 0	+160 0	+250 0	+400 0	+630 0	±20	±50	+4 -21	+12 -28	-8 -33	0 -40	-12 -52	0 -100	-28 -62	-43 -143
180 250	+355 +170	+215 +110	+96 +50	+122 +50	+61 +15		+29 0	+46 0	+72 0	+115 0	+185 0	+290 0	+460 0	+720 0	±23	±57.5	+5 -24	+13 -33	-8 -37	0 -46	-14 -60	0 -115	-33 -79	-50 -165
250 315	+400 +190	+240 +110	+108 +56	+137 +56	+69 +17		+32 0	+52 0	+81 0	+130 0	+210 0	+320 0	+520 0	+810 0	±26	±65	+5 -27	+16 -36	-9 -41	0 -52	-14 -66	0 -130	-36 -88	-56 -186
315 400	+440 +210	+265 +125	+119 +62	+151 +62	+75 +18		+36 0	+57 0	+89 0	+140 0	+230 0	+360 0	+570 0	+890 0	±28.5	±70	+7 -29	+17 -40	-10 -46	0 -57	-16 -73	0 -140	-41 -98	-62 -202

[μm]

[mm]	d9	e8	f7	g6	h5	h6	h7	h8	h9	h10	h11	js5	js6	js12	js13	js14	k5	k6	m5	m6	n5	n6	p6
- 3	-20 -45	-14 -28	-6 -16	-2 -8	0 -4	0 -6	0 -10	0 -14	0 -25	0 -40	0 -60	±2	±3	±50	±70	±125	+4 0	+6 0	+6 +2	+8 +2	+8 +4	+10 +4	+12 +6
3 > Ø ≥ 6	-30 -60	-20 -38	-10 -22	-4 -12	0 -5	0 -8	0 -12	0 -18	0 -30	0 -48	0 -75	±2.5	±4	±60	±90	±150	+6 +1	+9 +1	+9 +4	+12 +4	+13 +8	+16 +8	+20 +12
6 10	-40 -76	-25 -47	-13 -28	-5 -14	0 -6	0 -9	0 -15	0 -22	0 -36	0 -58	0 -90	±3	±4.5	±75	±110	±180	+7 +1	+10 +1	+12 +6	+15 +6	+16 +10	+19 +10	+24 +15
10 18	-50 -93	-32 -59	-16 -34	-6 -17	0 -8	0 -11	0 -18	0 -27	0 -43	0 -70	0 -110	±4	±5.5	±90	±135	±215	+9 +1	+12 +1	+15 +7	+18 +7	+20 +12	+23 +15	+35 +22
18 30	-65 -117	-40 -73	-20 -41	-7 -20	0 -9	0 -13	0 -21	0 -33	0 -52	0 -84	0 -130	±4.5	±6.5	±105	±165	±260	+11 +2	+15 +2	+17 +8	+21 +8	+24 +15	+28 +17	+35 +22
30 50	-80 -142	-50 -89	-25 -50	-9 -25	0 -11	0 -16	0 -25	0 -39	0 -62	0 -100	0 -160	±5.5	±8	±125	±195	±310	+13 +2	+18 +2	+20 +9	+25 +9	+28 +17	+33 +17	+42 +26
50 80	-100 -174	-60 -106	-30 -60	-10 -29	0 -13	0 -19	0 -30	0 -46	0 -74	0 -120	0 -190	±6.5	±9.5	±150	±230	±370	+15 +2	+21 +2	+24 +11	+30 +11	+33 +20	+39 +20	+51 +32
80 120	-120 -207	-72 -126	-36 -71	-12 -34	0 -15	0 -22	0 -35	0 -54	0 -87	0 -140	0 -220	±7.5	±11	±175	±270	±435	+18 +3	+25 +3	+28 +13	+35 +13	+38 +23	+45 +23	+59 +37
120 180	-145 -245	-85 -148	-43 -83	-14 -39	0 -18	0 -25	0 -40	0 -63	0 -100	0 -160	0 -250	±9	±12.5	±200	±315	±500	+21 +3	+28 +3	+33 +15	+40 +15	+45 +27	+52 +27	+68 +43
180 250	-170 -285	-100 -172	-50 -96	-15 -44	0 -20	0 -29	0 -46	0 -72	0 -115	0 -185	0 -290	±10	±14.5	±230	±360	±575	+24 +4	+33 +4	+37 +17	+46 +17	+51 +31	+50 +31	+79 +50
250 315	-190 -320	-110 -191	-56 -108	-17 -49	0 -23	0 -32	0 -52	0 -81	0 -130	0 -210	0 -320	±11.5	±16	±260	±405	±650	+27 +4	+36 +4	+43 +20	+52 +20	+57 +34	+66 +34	+88 +56
315 400	-210 -350	-125 -214	-62 -119	-18 -54	0 -25	0 -36	0 -57	0 -89	0 -140	0 -230	0 -360	±12.5	±18	±285	±445	±700	+29 +4	+40 +4	+46 +21	+57 +21	+62 +37	+73 +37	+98 +62

## TABELLA DELLE DUREZZE

Rm	Brinell	Vickers	Rockwell	
			[HRB]	[HRC]
[N/mm <sup>2</sup> ]	[HB]	[HV 30]	[HRB]	[HRC]
370	109	115		
385	114	120	66.7	
400	119	125		
415	124	130	71.2	
430	128	135		
450	133	140	75.0	
465	138	145		
480	143	150	78.7	
495	147	155		
510	152	160	81.7	
530	156	165		
545	162	170	85.0	
560	166	175		
575	171	180	87.1	
595	176	185		
610	181	190	89.5	
625	185	195		
640	190	200	91.5	
660	195	205	92.5	
675	199	210	93.5	
690	204	215	94.0	
705	209	220	95.0	
720	214	225	96.0	
740	219	230	96.7	
755	223	235		
770	228	240	98.1	20.3
785	233	245		21.3
800	238	250	99.5	22.2
820	242	255		23.1
835	247	260	101	24.0
850	252	265		24.8
865	257	270	102	25.6
880	261	275		26.4
900	266	280	104	
915	271	285		
930	276	290	105	

Rm	Brinell	Vickers	Rockwell	
			[HRB]	[HRC]
[N/mm <sup>2</sup> ]	[HB]	[HV 30]	[HRB]	[HRC]
950	280	295		29.2
965	285	300		29.8
995	295	310		31.0
1030	304	320		32.2
1060	314	330		33.3
1095	323	340		34.4
1125	333	350		35.5
1155	345	360		36.6
1190	352	370		37.7
1220	361	380		38.8
1255	371	390		39.8
1290	380	400		40.8
1320	390	410		41.8
1350	399	420		42.7
1385	409	430		43.6
1420	418	440		44.5
1455	428	450		45.3
1485	437	460		46.1
1520	447	470		46.9
1555	456	480		47.7
1630	475	500		49.1
1700	494	520		50.5
1775	513	540		51.7
1845	532	560		53.0
1920	551	580		54.1
1995	570	600		55.2
2070	589	620		56.3
2145	608	640		57.3
		660		58.3
		680		58.3
		700		60.1
		720		61.0
		740		61.8
		760		62.5
		780		63.3
		800		64.0

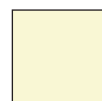
# TABELLA DELLE RUGOSITÀ

		Ra [ $\mu\text{m}$ ]	Rt [ $\mu\text{m}$ ]	Rz [ $\mu\text{m}$ ]
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">LAPPATURA</div> <div style="margin-bottom: 10px;">RETTIFICA</div> <div style="margin-bottom: 10px;">ALESATURA</div> <div style="margin-bottom: 10px;">FRESATURA</div> <div style="margin-bottom: 10px;">TORNITURA</div> <div>FORATURA</div> </div>	N1 ▼▼▼▼	0.025	0.50	0.40
	N2 ▼▼▼▼	0.05	0.80	0.63
	N3 ▼▼▼▼	0.10	1.25	1.00
	N4 ▼▼▼	0.20	2.50	2.00
	N5 ▼▼▼	0.40	5.00	4.00
	N6 ▼▼▼	0.80	8.00	6.30
	N7 ▼▼	1.60	16.00	10.00
	N8 ▼▼	3.20	32.00	16.00
	N9 ▼▼	6.30	-	40.00
	N10 ▼	12.50	-	63.00
	N11 ▼	25.00	-	100.00
	N12 ▼	50.00	-	160.00

Lavorazione



fine



normale



grezzo



**RIAFFILATURA**



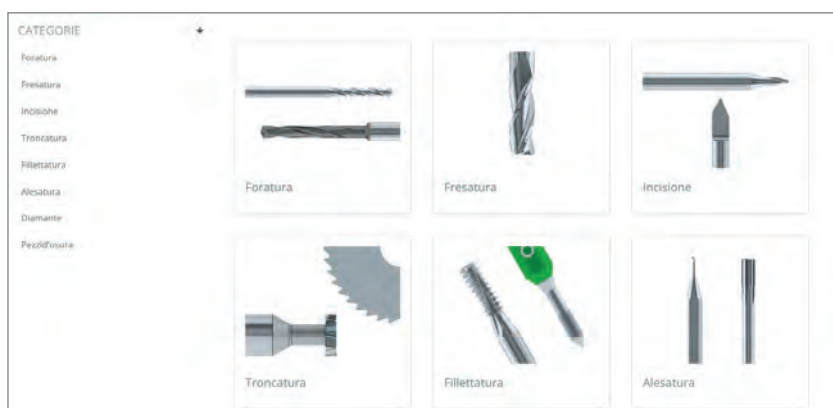
DIXI Polytool offre alla propria clientela un servizio di riaffilatura per qualsiasi utensile in metallo duro integrale, HSS, PCD e diamante naturale.

Questo servizio è disponibile per gli utensili DIXI, ed anche per gli utensili della concorrenza. La riaffilatura viene eseguita su affilatrici a 5 assi, al fine di garantire una geometria perfetta. Il controllo viene poi effettuato mediante degli strumenti ultramoderni.

La nostra rapidità di esecuzione consente alla nostra clientela una pianificazione flessibile.

**E-SHOP**

Ordinare in linea i nostri utensili standard.



**DIXI CHAT**

I nostri tecnici sono a vostra disposizione per qualsiasi domanda direttamente sulla nostra CHAT DIXI.



**ORDINAZIONE DI UTENSILI SPECIALI**

Usare i nostro modulo in linea

**Create il Vostro utensile**

Utensile:

Geometria:

Options:

/ campi contrassegnati con una stella (\*) sono obbligatori. Salvo eccezioni diverse, saranno applicate le tolleranze standard.

D: \*

D1: \*

L (p come standard DIXI):

L1: \*

α (angolo totale): \*

Z: \*

Senso di taglio: \*

Materiale da lavorare: \*

Rivestimento:

Fori di lubrificazione:

Quantità (ad es. : 5/10/20) \*





# CAMPI DI APPLICAZIONE DEI RIVESTIMENTI

## Materiale da lavorare

	VDI 3323	TiAIN		DICUT		XIDUR		C-TOP	
		Durezza (HV0.05) 3'100	Temp. max 800°C	Durezza (HV0.05) 3000	Temp. max 800°C	Durezza (HV0.05) 3'100	Temp. max 900°C	Durezza (HV0.05) 3400	Temp. max 1100°C
<b>P</b>	Acciaio non legato	1 - 5	○	○	○	○	○	○	○
	Acciaio leggermente legato < 800 N/mm <sup>2</sup>	6 - 9	○	○	○	○	○	○	○
	Acciaio fortemente legato > 800 N/mm <sup>2</sup> , acciaio inossidabile ferritico /martensitico	10 - 13	○	○	○	○	○	○	○
<b>M</b>	Acciaio inossidabile austenitico < 700 N/mm <sup>2</sup>	14.1 - 14.2	○	○	○	○	○	○	○
	Acciaio inox austenitico senza Ni / DUPLEX > 700 N/mm <sup>2</sup>	14.3 - 14.4	○	○	○	○	○	○	○
<b>K</b>	Ghisa grigia < 250 HB	15 - 16	○	○	○	○	○	○	○
	Ghisa nodulare, ghisa malleabile > 250 HB	17 - 20	○	○	○	○	○	○	○
<b>N</b>	Leghe d'alluminio < 12% Si	21 - 22							
	Fusioni d'alluminio > 12% Si	23 - 25							
	Leghe Cu bronzo ottone con Pb	26							
	Lega di rame difficile da lavorare	27 - 28							
	Plastica, legno	29 - 30							
	Grafite	-							
	Polimero rinforzato con fibra di carbonio	-							
	Oro, argento	-							
<b>S</b>	Leghe speciali nickel cobalto	31 - 35			○	○	○	○	○
	Titanio e relative leghe	36 - 37			○			○	○
<b>H</b>	Acciaio temprato > 45 HRC, ghisa dura	38 - 41					○	○	○

✘ Non applicabile

○ Bene

⊙ Eccellente



CUTINOX		DAC		DIXAL		DLC		DRYCUT		DIAMANT		DINAC		DI-TOP		POLYCUT	
Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max	Durezza (HV0.05)	Temp. max
3200	1000°C	1900	700°C	2100	550°C	4800	500°C	7000	500°C	10'000	500°C	3250	450°C	3200	450°C	3700	1100°C
⊙						✗		✗		✗		⊙		⊙		⊙	
⊙						✗		✗		✗		⊙		○		⊙	
○						✗		✗		✗		⊙		○		⊙	
⊙						✗		✗		✗		⊙		⊙		⊙	
⊙						✗		✗		✗		⊙		⊙		⊙	
						✗		✗		✗		○				○	
						✗		✗		✗		○				○	
		⊙		⊙		⊙		⊙				○		⊙			
		○		○		⊙		⊙		○							
		○		○		⊙		⊙				○		⊙			
		○		○		○		⊙				○		⊙			
								○		⊙							
						○		⊙		⊙							
						○		○									
						○		⊙		⊙							
						○		○		○		○					
○						✗		✗		✗		○				⊙	
						✗		✗		✗							
						✗		✗		✗						○	

# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
1	0.0030	A 366 (1012); 1008	C10	040 A 10; 045 M 10; 1449 10 CS	AF 34 C 10; XC 10	S 10C
1	1.0028		Ust 34-2 (S250G1T)		A 34-2	SS 330
1	1.0034		RSt 34-2 (S250G2T)	1449 34/20 HR, HS, CR, CS	A 34-2 NE	
1	1.0035		St185 (Fe 310-0); St 33	Fe 310-0; 1449 15 HR, HS	A 33	
1	1.0036	A 570; Gr. 33,36	S235JRG1 (Fe 360 B) Ust 37-2	Fe 360 B; 4360-40 B		
1	1.0037		S235JR (Fe 360 B) St 37-2	Fe 360 B; 4360-40 B	E 24-2	STKM 12A;C
1	1.0038	1115	GS-CK16	030A04		SS 330
1	1.0044	A 570 Gr. 40	S275JR (Fe 430 B) St44-2	Fe 430 B FN; 1449 43/25 HR, HS 4360-43 B	E 28-2	SM 400 A;B;C
1	1.0045		S355JR	4360-50 B	E 36-2	
1	1.0050	A 570 Gr.50; A 572 Gr.50	E295 (Fe 490-2); St 50-2	Fe 490-2 FN; 4360-50 B	A 50-2	SS 490
1	1.0060	A 572 Gr. 65	E335 (Fe 590-2); St 60-2	Fe 60-2; 4360-55 E; 55 C	A 60-2	SM 570
1	1.0070		E360 (Fe 690-2); St 70-2	Fe 690-2 FN	E 28-2	
1	1.0112		P235S	1501-164-360B LT20	E 36-2	
1	1.0114		S235JU;St 37-3 U	4360-40C	A 50-2	
1	1.0116	A 284 Gr.D; A 573 Gr.58; A 570 Gr 36;C A 611 Gr. C	S235J2G3 (Fe 360 D 1); St 37-3	Fe 360 D1 FF 1449 37/23 CR 4360-40 D	A 60-2	
1	1.0130		P265S	1501-164-400B LT 20	A 42 AP	
1	1.0143		S275J0; St 44-3 U	4360-43C	E 28-3	
1	1.0144	A 573 Gr. 70; A 611 Gr.D	S275J2G3 (Fe 430 D 1); St 44-3	Fe 430 D1 FF; 4360-43 C; 43 D	E 28-3; E 28-4	SM 400 A;B;C
1	1.0149		S275J0H; RoSt 44-2	4360-43C		
1	1.0226		DX51D; St 02 Z			
1	1.0301	M 1010	C10	040 A 10; 045 M 10; 1449 10 CS	AF 34 C 10; XC 10	S 10C
1	1.033	A 621 (1008)	DC 01; St 2; St 12	1449 4 CR; 1449 3 CS	TE	SPHD
1	1.0333	A 619 (1008)	Ust 3 (DC03G1); Ust 13	1449 2 CR;3 CR	E	SPCD
1	1.0334	A 621 (1008)	UStW 23 (DD12G1)		SC	SPHE
1	1.0335	A 622 (1008)	DD13; StW 24	1449 1 HR	3C	SPHE
1	1.0338	A 620 (1008)	DC04; St4; St 14	1449 1 CR;2 CR	ES	SPCE
1	1.0345	A 516 Gr. 65; 55; A 515 Gr. 65;55 A 414 Gr. C; A 442 Gr.55	P235GH HI	1501 Gr. 141-360 1501 Gr. 161-360; 151-360 1501 Gr. 161-400; 154-360 1501 Gr. 164-360; 161-360	A 37 CP;AP	SGV 410, SGV 450, SGV 48, SPV 450;SPV 480
1	1.0402	(M) 1020; M 1023	C22	055 M 15, 070 M 20 2C/2D 1499 22 HS, CS	AF 42 C 20; XC 25;1 C 22	S20C
1	1.0402	1020	C22	050A20 2C/2D	CC20	S22C
1	1.0402	1020;1023	C22	055 M 15, 070 M 20 2C	AF 42 C 20; XC 25;1 C 22	S 20 C;S 22 C
1	1.0425		P265GH H II	1501 Gr. 161-400;151-400 1501 Gr. 164-360; 161-400 1501 Gr. 164-400;154-400	A 42 CP; AP	SPV 315; SPV 355 SG 295; SGV 410 SGV 450; SGV 480
1	1.0443	A27 65-35	GS-45	A1	E 23-45 M	
1	1.0539		S355NH;StE 335		TSE 355-4	
1	1.0545		S355N; StE 355	4360-50E	E 355 R	
1	1.0546		S355NL;TStE 355	4360-50EE	E 355 FP	
1	1.0547		S355J0H	4360-50C	TSE 355-3	
1	1.0549		S355 NLH;TStE 355			
1	1.0533		S355J0;St 52-3U	4360-50C	E 36-3	
1	1.0562	A 633 Gr.C; A 588	P355N; StE 355	1501 Gr.225-490A LT 20	FeE 355 KG N E 355 R/FP; A 510 AP	SM 490 A;B;C; YA;YB
1	1.0565		P355NH; WStE 355	1501-225-490B LT 20	A 510 AP	S20C
1	1.0566	A 366 (1012); 1008	P355NL1; TStE 355	1501-225-490A LT 50	A 510 FP	
1	1.0570	1213	S355J2G3 St 52-3	Fe 510 D1 FF ;1449 50/35 HR>HS ; 4360-50 D	E 36-3; E 36-4	SM 490 A;B;C; YA;YB
1	1.0715	1213	9 SMn 28 (1SMn30)	230 M 07	S 250	SUM 22
1	1.0715	12 L 13	9 SMn 28	230 M 07	S 250	SUM 22
1	1.0718	1108; 1109	9 SMnPb 28 (11SMnPb30)	Fe 360 B; 4360-40 B	S 250 Pb	SUM 22 L ;SUM 23 L, SUM 24 L



# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
1	1.0721	11 L08	10 S 20	(210 M 15)	10 S 20; 10 F 2	
1	1.0722	11 L08	10 SPb 20		10 Pb F 2	
1	1.0736	1215	10 SPb 20		10 Pb F 2	SUM25
1	1.0737	12 L 14	9 SMn 36 11SMn37)			
1	1.0972	A 570 Gr.50; A 572 Gr.50	9 SMnPb 36 (11SMnPb37)	1501-40F30	E 315 D	
1	1.0976	A 572 Gr. 65	S315MC; QStE 300 TM	1501-43F35	E 355 D	
1	1.0982		S355MC; QStE 360 TM	1501-50F45		
1	1.0984		S460MC; QStE 460 TM		E 490 D	
1	1.0986		S500MC; QStE 500 TM	1501 - 60F55	E 560 D	
1	1.1121	1010	CK 10 (C10E)	040 A 10	XC 10	S 9 CK; S 10 C
1	1.1121		St 37-1	4360 40 A		
1	1.1141	1015	CK 15 (C15E)	040 A 15; 080 M 15	XC 12 XC15; XC 18	S 15; S 15 CK
1	1.1151	1020 ; 1023	C22E CK 22		2 C 22 XC18; XC 25	S 20 C, S 20 CK; S 22 C
1	1.2080	D 3	X 210 Cr 12	BD 3	Z 200 C 12	
1		A36	St 44-2	4360 43 A	NFA 35-501 E 28	
1		A 621 (1008)	StE 320-3Z	1 501 160		
1	1.8900	A572-60	StE 380	4360 55 E		S 25C
1	1.0406	(M) 1025	C 25	070 M 26	1 C 25	
1	1.0416	A 622 (1008)	GS-38		20-400 M	
1	1.0473	A 537 Cl.1 A 414 Gr. G A 612	P355GH	19 Mn 6	A 52 CP	SGV 410; SGV 450 SGV 480
1	1.0501	1035	C 35	080 A 32, 080 A 35 ;080 M 36, 1449 40 CS	1 C 35 AF 55 C 35 XC 38	S35C
2	1.0503	1045	CF 45 (C45G)	060 A 47 ;080 M 46	XC 42 H 1 TS	S 45 C
2	1.0511	1040	C 40	080 M 40	1 C 40; AF 60 C 40	S 40 C
2	1.0540		C 50			
2	1.0551	A27 70-36	GS-52	A2	280-480 M	
2	1.0553	A148 80-40	GS-60	A3	320-560 M	
2	1.0577	A738	S355J2G4 (Fe 510 D 2)	Fe 510 D2 FF 1501 Gr.224-460 1501 Gr. 224-490	A 52 FP	
2	1.0726	1140	35 S 20	212 M 36	35MF 6	
2	1.0727	1146	45 S 20 (46S20)		45 MF 4	
2	1.1157	1035; 1041	40Mn4	150 M 36	35 M 5; 40 M 5	S 09CK; S 25 C
2	1.1158	1025	C25E; CK 25	(070 M 25)	2 C 25; XC 25	
2	1.1166	1536	34Mn5	4360-50C		
2	1.1170	1330	28Mn6	(150 M 28), (150 M 18)	20 M 5, 28 Mn 6	SCMn 1
2	1.1170	1330	28Mn6	150 M 5	20 M 5	
2	1.1170	1330	28Mn6		20 M 5	SCMn 1
2	1.1178		C30E; CK 30	080M30	XC 32	
2	1.1170	1330	28Mn6	(150 M 28), (150 M 18)	20 M 5, 28 Mn 6	SCMn 1
2	1.1170	1330	28Mn6	150 M 5	20 M 5	
2	1.1170	1330	28Mn6		20 M 5	SCMn 1
2	1.1178		C30E; CK 30	080M30	XC 32	
2	1.1180	1035	C35R; Cm 35	080 A 35	3 C 35; XC 32	
2	1.1181	1035; 1038	C35E CK 35	080 A 35; (080 M 36)	2 C 35, XC 32; XC 38 H 1	S 35 C
2	1.1181	1035	C35E; CK 35	080 A 35; (080 M 36)		S 35 C
2	1.1191	1042	GS- Ck 45	080 A 46	XC 45	
2	1.1206	1049; 1050	C50E CK 50	080 M 50	2 C 50; XC 48 H 1; XC 50 H 1	
2	1.1213	1050; 1055	Cf 53 (C53G)	070 M 55	XC 48 H TS	S 50 C
2	1.5423	4520	22Mo4	1503-245-420		SB 450 M

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# GRUPPI DEI MATERIALI

	VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
P	2	1.0481	A 516 Gr.70; A 515 Gr. 70 A 414 Gr.F; G	P295GH 17 Mn 4	1501 Gr. 224	A 48 Cp;AP	SG 365, SGV 410; SGV 450 SGV 480
	2	1.0503	1043	C35	060 A 47; 080 M 46; 1449 50 HS, CS	1 C 45; AF 65 C 45	S 45 C
	2	1.0614	1074	C 76 D; D 75-2		XC 75	
	2	1.0616	1086	C 86 D; D 85-2		XC 80	SMn 433 H; SCMn 2
	2	1.0618	1095	C 92 D;D 95-2		XC 90	SMn 438 (H); SCMn 3
	2	1.1165	1036; 1330	30Mn5	120 M 36; (150 M 28)	35 M 5	S 40 C
	2	1.1167	1335	30Mn5	150 M 36	40 M 5	S 45 C; S 48 C
	3	1.1186	1040	C40E CK 40	060 A 40, 080 A 40; 080 M 40	2 C 40; XC 42 H 1	S 50 C
	3	1.1191	1045	C45E CK 45	080 M 46; 060 A 47	2 C 45; XC 42 H 1; XC 45; XC 48 H 1	
	3	1.1201	1049	C45R; Cm 45	080 M 46	3 C 45; XC 42 H 1; XC 48 H 1	SM 400 A;B;C
	3	1.7242		18 CrMo 4			
	3	1.7337	A 387 Gr. 12 Cl	16 CrMo 4 4			
	3	1.7362		12 CrMo 19 5			Z 10 CD 5.05
	3		A572-60	17 MnV 6	3606-625	NFA 35-501 E 36	
	3	1.0535	1055	C55	436055 E	1 C 55; AF 70 C 55	S 55 C
	3	1.0601	1060	C60	070 M 55	1 C 60; AF 70 C 55	S 58 C
	3	1.0603	1070	C67	060 A 62; 1449 HS,CS	XC 65	
	3	1.0605	1074; 1075	C75	080 A 67; 1449 70HS		
	3	1.1203	1055	C55E CK 55	1449 80 HS	2 C 5; XC 55 H 1	S 55 C
	3	1.1209	1055	C55R Cm 55	060 A 57; 070 M 55	3 C 55; XC 55 H 1	
	3	1.1221	1060; 1064	C60E CK 60	070 M 55	2 C 60; XC 60 H 1	S 58 C
	3	1.1231	1070	CK 67 (C67E)	060 A 62	XC 68	
	3	1.1248	1074; 1075; 1078	CK 75 (C75E)	060 A 67	XC 75	
	4	1.1269	1086	CK 85 (C85E)		XC 90	
	4	1.1274	1095	Ck 101 (C101E); C 125 W		XC 100	SUP 4
	4	1.1663	W 112	C 125 W		Y2 120	
	4	1.0070		St70-2			
	4	1.7238		49 CrMo 4			
	4	1.7701		51 CrMoV 4			
	4	1.0116	A573-81 65	St 37-3	4360 40 B		
	4	1.0345	A515 65	H1	1 501 161		
	4	1.0841	5120	St 52-3	150 M 19		
	4	1.0904	9255	55 Si 7	250A53		
	4	1.0904	9254	55 Si 7	250 A 53		
	5	1.0961	9262	60SiCr7	1 501 161	60 SC 6	
	5	1.2067	L3	100Cr6	BL3	100 C6	
	5	1.2108	L1	90 CrSi 5			
	6	1.2210	L2	115CrV3		100 C 3	
	6	1.2241		51CrV4			
	6	1.2311		40 CrMnMo 7			
	6	1.2330	4135	35 CrMo 4	708 A 37	34 CD 4	SCM435TK
	6	1.2419		105WCr6	B01	105 WC 13	
	6	1.2510	1	100 MnCrW 4	BS1	8 MO 8	SKS 31
	6	1.2542	S1	45 WCrV7			
	6	1.2550	S1	60WCrV7		55 WC 20	
6	1.2713	L6	55NiCrMoV6		55 NCDV 7	SKT 4	
6	1.2721	L6	50NiCr13		55 NCV 6		
6	1.2842	O2	90MnCrV8	B02	90 MV8		
6	1.3501	E 50100	100 Cr 2		55 WC 20		
6	1.3505	52100	100Cr6	2 S 135; 535 A 99	100 C 6	SUJ2	





# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
6	1.5024		46Si7		45 S 7; 46 Si 7	
6	1.5025	9255	51Si7		51 S 7; 51 Si 7	
6	1.5026	9255	55Si7	251 a 58	55 S 7	
6	1.5027	9260	60Si7	251 A 60; 251 H 60	60 S 7	
6	1.5028	9260 H	65Si7		60 S 7	50 P 7 SUP 6
6	1.5120		38 MnSi 4			
6	1.5415	A 204 Gr.A; 4017	16Mo3; 15 Mo 3	1503-243 B	15 D 3	
6	1.5419	4419	20Mo4	1503-243-430		SCPH 11
6	1.5622	A 350-LF 5	14Ni6		16 N 6	
6	1.5732	3415	1 NiCr10		14 NC 11	
6	1.5752	3310; 3314	14NiCr14	655M13	12 NC 15	
6	1.6587		17CrNiMo6	820A16	18 NCD 6	
6	1.6657		14NiCrMo134			
6	1.7015	5515	15 Cr 3	523 M 15	12 C 3	SCr415(H)
6	1.7033	5132	34Cr4	530A32	32 C 4	SCr430(H)
6	1.7035	5140	41C r4	530M40	42 C 4	SCr440(H)
6	1.7045	5140	42Cr41	530 A 40	42 C 4 TS	SCr440
6	1.7131	5115	16MnCr5	527 M 17	16 MC 5	
6	1.7139		16MnCr5			
6	1.7176	5515	55Cr3	527 A 60	55 C 3	SUP9(A)
6	1.7220	4135; 4137	34CrMo4	708 Aa 37	35 CD 4	
6	1.7223	4142	41CrMo4			SNB 22-1
6	1.7225	4140	42CrMo4	708 M 0	42 CD 4	
6	1.7176	5515	55Cr3	527 A 60	55 C 3	SUP9(A)
6	1.7220	4135; 4137	34CrMo4	708 Aa 37	35 CD 4	
6	1.7223	4142	41CrMo4			SNB 22-1
6	1.7225	4140	42CrMo4	708 M 0	42 CD 4	
6	1.7228		55NiCrMoV6G	823M30		
6	1.7262		15CrMo5	28Mn6	12 CD 4	
6	1.7321		20 m0cR 4	C30E; CK 30		
6	1.7335	ASTM A182 F-12	13CrMo4 4	1501-620Gr27		
6	1.7335	A 182-F11;12	13 CrMo 4 4	1 501 620 Gr. 27	15 CD 4.5	SCM415(H)
6	1.7380	ASTM A 182 F.22	10CrMo9 10	1501-622gR31; 45		
6	1.7380	A182 F-22	10 CrMo 9 10	1501-622	12 CD 9.10	
6	1.7715		14MoV6 3	1503-660-440		
6	1.8509	A355A	41CrAlMo 7	905 M 39	40 CAD 6.12	
7	1.0038	A570.36	S235JRG2 (Fe 360 B) RSt 37-2	Fe 360 B FU 1449 27/23 CR; 4360-40 B	E 24-2NE	
7	1.5710	3135	36NiCr6	640A35	35 NC 6	
7	1.5755		31 NiCr 14	653 M 31	18 NC 13	
7	1.6523	8620	2 NiCrMo2	805M20	20 NCD 2	
7	1.6546	8740	40 NiCrMo 22	311-Tyre 7		
7	1.7218	4130	25CrMo4	CDS 110	25 CD 4	
7	1.7733		24 CrMoV 5 5		20 CDV 6	
7	1.7755		GS-45 CrMOV 10 4			
7	1.8070		21 CrMoV 5 11			
8	1.2332	4142	47 CrMo 4	708 M 40	42 CD 4	SCM (440)
8	1.3401	A128 (A)	G-X120 Mn 12		Z 120 M 12	SCMnH 1, SCMn; H 11
8	1.5736	3435	36 NiCr 10		30 NC 11	

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# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
8	1.6511	9840	36CrNiMo4	816M40	40 NCD 3	SUP 10
8	1.6582	4340	35CrNiM 6	817 M 40	35 NCD 6	SNCM 447
8	1.7361		32 CeMo12	722 M 24	30 CD 12	
8	1.8159	6150	50 CrV 4	735 A 50	50 CV 4	
8	1.8161		58 CrV 4			
8	1.8515		32 CrMo 12	722 M 24	30 CD 12	
8	1.8523		39CrMoV13 9	897M39		
9	1.4882		X 50 CrMnNiNbN 21 9		Z 50 CMNnb 21.09	
9	1.5710	3135	36NiCr6	640A35	35 NC 6	SNC236
9	1.5864		35 niCr 18			
9			31 NiCrMo 13 4	830 M 31		
10	1.0144	A573-81	ST 44-3	4360 43 C	E 28-3	SM 400A;B;C
10	1.0347	A 619	DC03; RSt;RRSt 13	1449 3 CR; 1449 2 CR	E	
10	1.0401	M 1015; M 1016; M 1017	C15	080 M 15	AF 37 C12; XC 18	S 15 C
10	1.0570		ST 52-3	4360 50 B	E 36-3	SM490A;B;C;YA;YB
10	1.0718	12L13	9 SMnPb 28		S 250 Pb	SUM 22L
10	1.0723		15 S 22; 15 S 20	210 A 15; 210 M 15		SUM 32
10	1.2083					
10	1.2343	H 11	X 38 CrMoV 5 1	BH 11	Z 38 CDV 5	
10	1.2344	H 13	X 40 CrMoV 5 1	BH 13	Z 40 CDV 5	SKD61
10	1.2363	A 2	X100 CrMoV 5 1	BA 2	Z 100 CDV 5	SKD12
10	1.2379	D 2	X 155 CrVMo 12 1	BD2	Z 160 CDV 12	
10	1.2379	HNV3	X210Cr12G	BD2	Z 160 CDV 12	
10	1.2436	D 4 (D 6)	X 210 CrW 12	BD6	Z 200 CD 12	
10	1.2581	H 21	X 30 WCrV 9 3	BH 21	Z 30 WCV 9	SKD5
10	1.2601		X 165 CrMoV 12			
10	1.2606	H 12	X 37 CrMoW 5 1	BH 12	Z 35 CWDV 5	
10	1.3343	D3	S 6-5-2	BM2	Z 200 C12	SUH3
10	1.2436	D 4 (D 6)	X 210 CrW 12	BD6	Z 200 CD 12	
10	1.2581	H 21	X 30 WCrV 9 3	BH 21	Z 30 WCV 9	SKD5
10	1.2601		X 165 CrMoV 12			
10	1.2606	H 12	X 37 CrMoW 5 1	BH 12	Z 35 CWDV 5	
10	1.3343	D3	S 6-5-2	BM2	Z 200 C12	SUH3
10	1.4563	N08028			Z 1 NCDU 31-27-03	
10	1.5662	ASTM A353	X8Ni9	1501-509;510		SL9N60(53)
10	1.5662	ASM A353	X8Ni9	502-650	9 Ni	
10	1.5680	2517	12Ni19	12Ni19	Z 18 N 5	
11	1.3202		S 12-1-4-5	BT 15		SKS 31
11	1.3207		S 10-4-3-10	BT 42	Z 130 WKCDV	
11	1.3243	T15	S 6-5-2-5		KCV 06-05-05-04-02	SKH55
11	1.3246		S 7-4-2-5		Z 110 WKCDV 07-05-04	
11	1.3247		S 2-10-1-8	BM 42	Z 110 DKCWW 09-08-04	
11	1.3249	M 42	S 2-9-2-8	BM 34		
11	1.3255	T 4	S 18-1-2-5	BT 4	Z80 WKCV 18-05-04-0	
11	1.3343	M 2	S6-5-2	BM2	Z 85 WDCV	SKH 51
11	1.3348	M 7	S2-9-2		Z 100 DCVV 09-04-02	
11	1.3355	T 1	S 18-0-1	BT 1	Z 80 WCV 18-4-01	
11	1.4548	630			Z 7 CNU 17-04	
11	1.4718	HNV 3	X45CrSi 9 3	401S45	Z 45 CS 9	SUH1
11	1.4935	422	X20 CrMoWV 12 1			
12	1.4000	403	X6Cr13	403 S 17	Z 6 C 13	SUS403
12	1.4001		X6Cr14			
12	1.4001	(410S)	X7 Cr 13	(403 S 7)	Z 8 C 13	SCPH 11
12	1.4002	405	X6CrA12	405S17	Z 8 CA 12	
12	1.4002	405	X6 CrAl 13	405 S 17	Z6 CA 13	
12	1.4005	416	X12CrS 13	416 S 21	Z 11 CF 13	SUS403

# GRUPPI DEI MATERIALI

	VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
	12	1.4006	410; CA-15	(G-)X10 Cr 13	410S21	Z 10 C 13	SUS403
	12	1.4016	430	X8Cr17	Z8C17	430 S15	
	12	1.4016		X6 Cr 17	430 S 15	Z 8 C 17	SUS 430
	12	1.4027		G-X20Cr14	420 C 29	Z 20 C 13M	
	12	1.4027	5140	G-X 20 Cr 14	420 C 29	Z20 C 13M	
	12	1.4028	420	X30 Cr 13	420 S 45	Z 30 C 13	
	12	1.4086		G-X120Cr29	452C11		
	12	1.4104	430 F	X12CrMoS17	420 S 37	Z 10 CF 17	SUS430F
	12	1.4112	440B	X90 CrMoV 18			
	12	1.4113	434	X6CrMo 17	434 S 17	Z 8 CD 17.01	SUS434
	12	1.4340		G-X40CrNi27 4			
	12	1.4417	S31500	X2CrNiMoSi19 5			
	12	1.4418		X2 CrNoMoSi 18 5 3		Z 6 CND 16-04-01	
	12	1.4510	XM 8; 430 Ti; 439	X4 CrNiMo16 5		Z 4 CT 17	SUS 430 LK
	12	1.4511	XM 8; 430 Ti; 439	X 6 CrNb 17(X 6 CrNb 17		Z 4 CNb 17	SUS 430 LK
	12	1.4512	409	X 6 CrTi 12 (X2CrTi12)	LW 19; 409 S 19	Z 3 CT 12	SUH 409
	12	1.4418		X2 CrNoMoSi 18 5 3		Z 6 CND 16-04-01	
	12	1.4510	XM 8; 430 Ti; 439	X4 CrNiMo16 5		Z 4 CT 17	SUS 430 LK
	12	1.4511	XM 8; 430 Ti; 439	X 6 CrNb 17(X 6 CrNb 17		Z 4 CNb 17	SUS 430 LK
	12	1.4512	409	X 6 CrTi 12 (X2CrTi12)	LW 19; 409 S 19	Z 3 CT 12	SUH 409
	12	1.4720		X20CrMo13			
	12	1.4724	405	X10CrA113	403S17	Z 10 C 13	
	12	1.4742	430	X10CrA118	439S15	Z 10 CAS 18	SUS430
	12	1.4747	HNv6	X80CrNiSi20	443S65	Z 80 CSN 20.02	SUH4
	12	1.4749	446	X18 CrN 28			
	12	1.4762	446	X10CrA124		Z 10 CAS 24	SUH446
	12	1.4871	EV 8	X 53 CrMnNiN 21 9	349 S 54	Z 52 CMN 21.09	SUH35,SUH36
	12		302	X12 CrNi 18 9	302 S 31	Z 10 CN 18-09	
	12		429	X10 CrNi 15			
	12	1.4521	443; 444	X2CrMoTi18-2	317 S 16		SUS 444
	13	1.4021	420	X20Cr13	420S37	Z 20 C 13	
	13	1.4031	420	X40 Cr 13		Z 40 C 14	
	13	1.4034		X46Cr13	420 S 45	Z 40 C 14	SUS420J2
	13	1.4057	431	X20CrNi172	431 S 29	Z 15 CN 16.02	SUS431
	13	1.4125		X 105 CrMo 17		Z 100 CD 17	
	13	1.4313	8620	2 NiCrMo2	805M20	20 NCD 2	
	13	1.4544			S. 524; S. 526		
	13	1.4546	348	X5CrNiNb 18-10	347 S 31; 2 S. 130; 2 S. 143/144/145; S.525/527		
	13	1.4922		X20CrMoV12-1			
	13	1.4923		X22 CrMoV12 1			
<b>M</b>	14.1	1.4305	303	X10 CrNiS 18 9	303 S 21	Z 8 CNF 18-09	
	14.1	1.4306	304L	X2CrNi18 9	304S12	Z 2 CN 18 10	SCM (440)
	14.1	1.4305	303	X10 CrNiS 18 9	303 S 21	Z 8 CNF 18-09	
	14.1	1.4306	304L	X2CrNi18 9	304S12	Z 2 CN 18 10	SCM (440)
	14.2	1.4301	304	X 5 CrNi 18 9	304 S 15	Z 5 CN 18.09	SCMnH 1, SCMn; H 11
	14.2	1.4306	304L	X2 CrNi 18 10	304 S 11	Z 3 CN 19-11	
	14.2	1.4308	CF-8	X6 CrNi 18 9	304 C 15	Z 6 CN 18-10 M	SUP 10
	14.2	1.4310	301	X12CrN i17 7	301 S 21	Z 12 CN 17.07	SNCM 447
	14.2	1.4311	304 LN	X2 CrNiN 18 10	304 S 62	Z 2 CN18.10	
	14.2	1.4312		G-X10CrNi18 8	302C25	Z 10 CN 18.9M	
	14.2	1.4312	305	X8 CrNi 18 12	305 S 19		



# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
14.2	1.4332		X2 CrNi 18-8		Z 6CN18.09	
14.2	1.4350	304	X5CrNi18 9	304S15	Z 8 CMN 18- 08-05	
14.2	1.4371	202	X3 CrMnNiN 188 8 7	284 S 16	Z 3 CND 17 -11-01;Z 6 CND 17-11; Z 6 CND 17-11-02; Z 7 CND 17-11-02; Z 7 CND 17-12-02	
14.2	1.4401	316	X 5 CrNiMo 17 12 2; (X4 CrNiMo 17 -12-2)	316 S 13;316 S 17;316 S 19;316 S 31 ;316 S 33	Z 2 CND 17-12; Z 2 CND 18-13; Z 3 CND 17-11-02; Z 3 CND 17-12-02 FF; Z 3 CND 18-12-03; Z 3 CND 19.10 M	SNC236
14.2	1.4404	316L	X2 CrNiMo 17 13 2; (X2 CrNiMo 17-12-2) GX 2 CrNiMoN 18-10	316 S 11, 316 S 13;316 S 14, 316 S 31; 316 S 42, S.537;316;C 12, T.75, S. 161	Z2 CND 17-12 AZ	
14.2	1.4406	316LN	X2 CrNiMoN 17 12 2; (X2CrNiMoN 18-10)	316 S 61;316 S 63		
14.2	1.4408	CF-8M	GX 5 CrNiMoN 7 12 2; G-X 6 CrNiMo 18 10	316 C 16 (LT 196);ANC 4 B*		SM 400A,B;C
14.2	1.4429	316 Ln	X2 CrNiMo 17 -13-3	316 S 62	Z 2 CND 17-13 Az	
14.2	1.4435	316L	X2 CrNiMo18 14 3	316 S 11;316 S 13; 316 S 14;316 S 31; LW 22; LWCF 22	Z 3 CND 17-12-03; Z 3 CND 18-14-03	S 15 C
14.2	1.4436	316	X 5 CrNiMo 17 13 3; (X4CRNiMo 17-13-3)	316 S 19;316 S 31;316 S 33; LW 23; LWCF 23	Z 6 CND 18-12-03; Z 7 CND 18-12-03	SM490A;B;C;YA;YB
14.2	1.4438	317L	X2 CrNiMo 18 16 4; (X2CrNiMo 18-15-4)	317 S 12	Z 2 CND 19-15-04; Z 3 CND 19-15-04	SUM 22L
14.2	1.4439	(s31726)	X 2 CrNiMo 18 13		Z 3 CND 18-14-06 AZ	SUM 32
14.2	1.4440		X5 CrNiMo 17 13 3			
14.2	1.4449	317	X 4 CrNiMo 27 5 2 (X3CrNiMo27-5-2)	317 S 16	(Z 3 CND 25-07 Az); Z 5 CND 27-05 Az	
14.2	1.4449; 1.4460	329	G-X7NiCrMoCuNb25 20		23 NCDU 25.20M	SKD61
14.2	1.4500		X1NiCrMoCuN25-20-5		Z 2 NCDU 25-20	SKD12
14.2	1.4539		X1NiCrMoCuN25-20-5		Z 1 NCDU 25-02 M	
14.2	1.4539	904L	(G-)X1 NiCrMoCu 25 20 5		Z 6 CNT 18-10	
14.2	1.4541	CN-7M	X1 CrNiMoN 20 18 7	321 S 31; 321 S 51 (1010;1105); LW 24; LWCF 24	Z 200 CD 12	
14.2	1.4547	321	X6 CrNiMoTi 17 12 2			SKD5
14.2	1.4571	S31254	G-X 5 CrNiMoNb	320 S 31	Z 6 CNDT 17-12002	
14.2	1.4581		X 10CrNiMoNb 18 12	318 C 17	Z 4 CNDNb 18.12 M	
14.2	1.4583	318	G-X7CrNiMoCuNb18 18	303 S 21	Z 15 CNS 20.12	SUH3
14.2	1.4585		X5 CrNiNb 18 10			
14.2	1.4891	Ss30415	X 30 WCrV 9 3		Z 20 CNS 25.04	SKD5
14.2	1.4893	S30815	X8 CrNiNb 11			
14.2	1.4948	304H	X6 CrNi 18 11	304 S 51	Z 5 CN 18-09	
14.3	1.4362	S32304	X2 CrNiN 23 4		Z 2 CN 23-04 AZ	SUH3
14.3	1.4410		G-X10CrNiMo18 9		Z 5 CNaD 20.12M	
14.3	1.4460	329	X8CrNiMo27 5			SL9N60(53)
14.3	1.4462		X2CrNiMoN22 5 3	318 S 13	Z 3 CND 22-05 Az; (Z 2 CND 24 -08 Az ) (Z 3 CND 25-06-03 Az)	
14.3	1.4823	310	G-X40CrNiSi27 4		Z 30 CN 26-05	
14.4	1.4542	630	X 5 CrNiCuNb 17 4; (X5CrNiCuNb 16-4)		Z 7 CNU 15-05; Z 7 CNU 17-04	SKS 31
14.4	1.4542	17-4PH			Z 7 CNU 17-04	
14.4	1.4550	347	X6 CrNiNb 18 10	347 S 17	Z 6 CNNb 18.10	SKH55
14.4		17-7PH		316 S 111		
14.4	1.4821		X20CrNiSi25 4		Z 20 CNS 25.04	
14.4	1.4828	309	X15CrNiSi20 12	309 S 24	Z 15 CNS 20.12	SCS17
14.4	1.4833	309S	X6 CrNi 22 13	309 S 13	Z 15 CN 24-13	
14.4	1.4845	310 S	X12 CrNi 25 21	310 S 24	Z 12 CN 25-20	SUH310
14.4	1.4878	321	X6 CrNiTi 18 9	32 1 S 20	Z 6 CNT 18-12 (B)	SUS321
14.4	1.4980	660	X6 NiCrTiMoVB25-15-2		E-Z6 NCT 25	
15	0.6010	A48-20B	GG 10		Ft 10 D	
15	0.6015	NO 25 B	GG 15	Grade 150	Ft 15 D	FC150
15	0.6015	CLASS25	GG 15	Grade 150	Ft 15D	
15	0.6015	A48 25 B	GG 15	Grade 150	Ft 15 D	
15	0.6020	A48-30B	GG 20	Grade 220	Ft 20 D	
15	0.6020	NO 30 B	GG 20	Grade 220	Ft 20 D	FC200
15	0.6660	A436 Type 2	GGL-NiCr202	L-NiCuCr202	L-NC 202	
15	0.7040	60-40-18	GGG 40	SNG 420/12	FCS 400-12	FCD400

# GRUPPI DEI MATERIALI

	VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
K	15	0.6680	A436 Type 2	GGL-NiCr202	L-NiCuCr202	L-NC 202	
	15	0.7040	60-40-18	GGG 40	SNG 420/12	FCS 400-12	FCD400
	15		No 20 B	GG 10		Ft 10 D	FC100
	16	0.6020	CLASS30	GG 20	Grade 220	Ft 20D	
	16	0.6030	CLASS45	GG 30	Grade 300	Ft 30D	FC300
	16	0.6030	A48-45 B		Grade 350	Ft 30D	
	16	0.6035	A48-50	GG 35	Grade 350	Ft 35 D	FC350
	16	0.6040	A48-60 B	GG 40	Grade 400	Ft 40 D	
	16	0.7070	100/70/03	GGG 70	SNG700/2	FGS 700-2	FCD700
	17	0.7033		GGG35.3			
	17		434	GGG-35.3	350/22 L 40	FGS 370/17	
	17	0.7040	60-40-18	GGG-40	SNG 420/12	FGS 400-12	
	17	0.7043	60/40/18	GGG-40.3	370/7	FGS 370/17	
	17	0.7050	80-55-06	GGG50	SNG500/7	FGS 500/7	
	17		65-45-12	GGG-50	SNG 500/7	FGS 500-7	FCD 500
	17	0.7652		GGG-NiMn 13 7	S-NiMn 137	S-Mn 137	
	17	0.7660	A43D2	GGG-NiCr 20 2	Grade S6	S-NC 202	
	17				SNG 370/17	FGS 370-17	
	18	0.6025	A48-40 B	GG25	Grade260	Ft 25 D	
	18	0.7060		GGG60	SNG600/3	FGS600-3	FC250
	18		80/55/06	GGG-60	600/3	FGS 600/3	
	18		A48 40 B				FCD600
	19	0.8055		GTW55			
	19	0.8135	32510	GTS-35-10	B 340/12	MN35-10	
	19		A47-32510	GTS-35-10	B 340/2	MN 35-10	
	19	0.8145	A220-40010	GTS-45-06	P 440/7	MN 450-6	
	19			GTS-35	B 340/12		
	19				8 290/6	MN 32-8	
	19		32510	GTS-35	B340/12	MN 35-10	
	20	0.8035		GTM-35	W/340/3	MB35-7	AC4A
	20	0.8040		GTW-40	W410/4	MB40-10	FCMW330
	20	0.8045					
	20	0.8065		GTMW-65			
	20	0.8155	A220-50005	GTS-55-04	P 510/4	MN 550-4	
	20		50005	GTS-55-04	P 510/4	MP 50-5	
	20	0.8165	70003	GTS-65-02	P 570/3	MN 650-3	
	20	0.8170	90001	GTS-70-02	P 690/2	MN 700-2	FCMP490
	20		A220-90001	GTS-70-02		MN 700-2	FCMP590
	20	0.8170		GTS-70-02	IP 70-2		FCMP690
	20	1.1133	1022; 1518	20Mn5	120 M 19	20 M 5	
20	1.1183	1035	Cf 35 (C35G)	080 A.35	XC 38 H 1 TS		
20		40 010	GTS-45	P440/7		SMnC 420	
20		70003	GTS-65	P 570/3	MP 60-3	S 35 C	
N	21	3.0205	Al99				
	21	3.0255	1000	Al99.5	L31/34/36	A59050C	FCMP540
	21	3.3315		AlMg1			
	22	3.1325		AlCuMg 1			
	22	3.1655		AlCuSiPb			
	22	3.2315		AlMgSi1			
	21	3.4345	7050	AlZnMgCu0,5	L 86	AZ 4 GU/9051	
23	3.2381		G-AISi 10 Mg				



# GRUPPI DEI MATERIALI

VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS
N	23	3.2382	GD-AISI10Mg			
	23	3.2581	G-AISI12			
	23	3.3561	G-ALMg 5			
	23	3.5101	ZE 41	G-MgZn4sE1Zr1	MAG 5	
	23	3.5103	EZ 33	MgSE3Zn27r1	MAG 6	G-TR3Z2
	23	3.5812	AZ 81	G-MgAl8Zn1	NMAG 1	
	23	3.5912	AZ 91	G-MgAl9Zn1	MAG 7	
	24	2.1871	G-AlCu 4 TiMg			
	24	3.1754	G-AlCu5Ni1,5			
	24	3.2163	G-AISI9Cu3			
	24	3.2371	4218 B	G-AISI 7 Mg		
	24	3.2373	SC64D	G-AISI9MGWA		A-S7G C4BS
	24	3.2373		G-AISI9 Mg		
	24	3.5106	QE 22	G-MgAg3SE2Zr1	mag 12	
	24		GD-AISI12	G-ALMG5	LM5	A-SU12
	23-24	3.2383	A360.2	G-AISI0Mg(Cu)	LM9	
	23-24		A356-72		2789;1973	NF A32-201
	23-24		356,1		LM25	A5052
	23-24		A413.2	G-AISI12	LM6	
	23-24		A413.1	G-AISI 12 (Cu)	LM20	ADC12
	23-24		A413.0	GD-AISI12		A6061
	23-24		A380.1	GD-AISI8Cu3	LM24	A7075
	26	2.1090	C93200	G-CuSn 7 5 pb		U-E 7 Z 5 pb 4
	26	2.1096	C83600	G-CuSn5ZnPb	LG 2	
	26	2.1098	C83600	G-CuSn 2 Znpb		
	26	2.1182	C23000	G-CuPb15Sn	LB1	U-pb 15 E 8
	26	2.1182	C93800	G-CuPb15Sn		Uu-PB 15e 8
	27	2.0240		CuZn 15		
	27	2.0321	C27200	CuZn 37	cz 108	CuZn 36, CuZn 37
	27	2.0590		G-CuZn40Fe		
	27	2.0592	C 86500	G-CuZn 35 Al 1	U-Z 36 N 3	HTB 1
	27	2.0596	C 86200	G-CuZn 34 Al 2	HTB 1	U-Z 36 N 3
	27	2.1293	C 18200	CuCrZr	CC 102	U-Cr 0.8 Zr
	28	2.0060		E-Cu57		
	28	2.0375		CuZn36Pb3		
	28	2.0596	C 94100	G-CuZn 34 Al 2	HTB 1	U-Z 36 N 3
	28	2.0966	C 63000	CuAl 10 Ni 5 Fe 4	Ca 104	U-A 10 N
	28	2.0975	B-148-52	G-CuAl 10 Ni		
	28	2.1050	C 90700	G-CuSn 10	CT1	
	28	2.1052	C 90800	G-CuSn 12	pb 2	
	28	2.1292	C 81500	G-CuCrF 35	CC1-FF	
	28	2.4764				
	31	1.4558	N 08800	X 2 NiCrAlTi 32 20	NA 15	
	31	1.4562	N 08031	X 1 NiCrMoCu 32 28 7		
	31	1.4563	N 08028	X 1 NiCrMoCuN 32 27 4		
	31	1.4564	N 08330	X 12 NiCrSi 36 16	NA 17	Z 12 NCS 35.16
	31	1.4564	330	X12 NiCrSi 36 16	NA 17	Z 12 NCS 37.18
	31	1.4865		G-X40NiCrSi38 18	330 C 40	SUH330 SCH15
	31	1.4958		X 5 NiCrAlTi		
	31	2.4668	AMS 5544	NiCr19NbMo		NC 20 K14
	32	1.4977		X 40 CoCrNi 20 20		Z 42 CNKDOWNb
	33	2.4360	Monel 400	NiCu30Fe	NA 13	NU 30
	33	2.4603	5390A			NC 22 FeD
	33	2.4610	Hastelloy C-4	NiMo16cR16Ti		
	33	2.4630	Nimonic 75	NiCr20Ti	HR 5,203-4	NC 20 T

# GRUPPI DEI MATERIALI

	VDI 3323	W.-Nr.	AISI/SAE	DIN	BS	AFNOR	JIS	
S	33	2.4642	Inconel 690	NiCr29Fe		NC 30 Fe		
	33	2.4856	Inconel 625	NiCr22Mo9Nb	NA 21	NC 22 FeDNb		
	33	2.4858	Incoloy 825	NiCr21Mo	NA 16	NC 21 Fe DU		
	34	2.4375	Monel k-500	NiCu30 Al	NA 18	NU 30 AT		
	34	2.4375	4676	NiCu30Al	3072-76			
	34	2.4631		NiCr20TiAl	Hr40,601	NC20TA		
	34	2.4668	Inconel 718	NiCr19FeNbMo		NC 19 Fe Nb		
	34	2.4694	Inconel	NiCr16fE7TiAl		NC 19 Fe Nb		
	34	2.4955		NiFe25Cr20NbTi				
	34	2.4668	5383	NiCr19Fe19NbMo	HR8	NC 19 FeNB		
	34	2.4670	5391	S-NiCr13A16MoNb	3146-3	NC 12 AD		
	34	2.4662	5660	NiFe35Cr14MoTi		Z 8 NCDT 42		
	34	2.4964	5537C	CoCr20W15Ni		KC20WN		
	34		AMS 5772	CoCr22W14Ni		KC22WN		
	35	2.4669	Inconel X-750	NiCr15Fe7TiAl		NC 15 TNb A		
	35	2.4685	Hastelloy B	G-NiMo28				
	35	2.4810	Hastelloy C	G-NiMo30				
	35	2.4973	AMS 5399	NiCr19Co11MoTi		NC 19 KDT		
	35	3.7115		TiAl5Sn2				
	36	3.7025	R 50250	Ti 1	2 TA 1			
	36	3.7225	R 52250	Ti 1 pd	TP 1			
	36	2.4674	AMS 5397	NiCo15Cr10MoAlTi				
	37	3.7124		TiCu2	2 TA 21-24			
	37	3.7145	R 54620	TiAl6Sn2Zr4Mo2Si				
	37	3.7165		TiAl6V4	TA 10-13;TA 28	T-A 6 V		
	37	3.7185		TiAl4Mo4Sn2	TA 45-51; TA 57			
	37	3.7195		TiAl 3 V 2.5				
	37			TiAl4Mo4Sn4Si0.5				
	37		AMS R54520	TiAl5Sn2.5	TA14/17	T-A5E		
	37		AMS R56400	TiAl6V4	TA10-13/TA28	T-A6V		
	37		AMS R56401	TiAl6V4ELI	TA11			
	H	38	1.1545	W 1	C105W1	BW 1A	Y1105	SK3
		38	1.1545	W210	C105W1	BW2	Y120	SUP4
38		1.2762		75 CrMoNiW 6 7				
38		1.4125	440C	X105 CrMo 17		Z 100 CD 17		
38		1.6746		32 nlcRmO 14 5	832 M 31	35 NCD 14		
40		0.9620	Ni- Hard 2	G-X 260 NiCr 4 2	Grade 2 A			
40		0.9625	Ni- Hard 1	G-X 330 Ni Cr 4 2	Grade 2 B			
40		0.9630	Ni- Hard 4	G-X 300 CrNiSi 9 5 2				
40		0.9640		G-X 300 CrMoNi 15 2 1				
40		0.9650	A 532 III A 25% Cr	G-X 260 Cr 27	Grade 3 D			
40		0.9655	A 532 III A 25% Cr	G-X 300 CrNiMo 27 1	Grade 3 E			
40		1.2419		105 WCr 6	105WC 13			
40		1.4841	310	X15 CrNiSi 25 20	314 S31	Z 15 CNS 25-20		
41		0.9635		G-X 300 CrMo 15 3				
41		0.9645		G-X 260 CrMoNi 20 2 1				
41	0.9655		G-X 300 CrNiMo 27 1					





## INDICE DEGLI UTENSILI

DIXI	Capitolo	Pag.	DIXI	Capitolo	Pag.	DIXI	Capitolo	Pag.
0418-0419	FILETTATURA	400	1661	FILETTATURA	384	4374	ALESATURA	453
0418-AF	FILETTATURA	382	1672 - 1673	TRONCATURA	337	6801	USURA	518
0419-AF	FILETTATURA	382	1674	TRONCATURA	336	6820	USURA	520
0420 - 0421	USURA	522	1675 - 1680	TRONCATURA	334	6960	USURA	521
0700 - 0710	TRONCATURA	339	1685	TRONCATURA	335	6961	USURA	520
1101	FORATURA	12	1690	TRONCATURA	338	7007	INCISIONE	294
1106	FORATURA	13	1708	FILETTATURA	363	7012 - 7016	INCISIONE	296
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1107	FORATURA	15	1712	FILETTATURA	360	7020 - 7024	INCISIONE	296
1108	FORATURA	16	1712 L	FILETTATURA	361	7025	INCISIONE	295
1109	FORATURA	17	1712-AF/BT	FILETTATURA	377	7027	INCISIONE	293
1110	FORATURA	18	1713	FILETTATURA	362	7032	FRESATURA	170
1111	FORATURA	19	1715	FILETTATURA	365	7033	FRESATURA	179
1112-1114-1118	FORATURA	68	1716	FILETTATURA	366	7042	FRESATURA	172
1126	FORATURA	20	1716-AF/BT	FILETTATURA	378	7045	FRESATURA	174
1130	FORATURA	22	1718-AF/BT	FILETTATURA	381	7046	FRESATURA	173
1130 L	FORATURA	24	1718-M	FILETTATURA	398	7047	FRESATURA	174
1131	FORATURA	28	1718-S	FILETTATURA	397	7060	FRESATURA	106
1131 L	FORATURA	31	1719-AF/BT	FILETTATURA	381	7063	FRESATURA	107
1132	FORATURA	26	1719-M	FILETTATURA	398	7070	FRESATURA	165
1133	FORATURA	27	1719-S	FILETTATURA	397	7102	FRESATURA	180
1134	FORATURA	40	1720	FILETTATURA	399	7112	FRESATURA	181
1135	FORATURA	42	1730	FILETTATURA	370	7202	FRESATURA	119
1136	FORATURA	45	1735	FILETTATURA	372	7203	FRESATURA	131
1137	FORATURA	34	1737	FILETTATURA	369	7204	FRESATURA	144
1138	FORATURA	48	1738	FILETTATURA	368	7210	FRESATURA	151
1139	FORATURA	50	1738-AF/BT	FILETTATURA	379	7213	FRESATURA	152
1145	FORATURA	57	1739	FILETTATURA	367	7214	FRESATURA	153
1146	FORATURA	59	1740	FILETTATURA	374	7215	FRESATURA	154
1147	FORATURA	55	1740-AF/BT	FILETTATURA	380	7217	FRESATURA	155
1149	FORATURA	53	1742	FILETTATURA	375	7220	FRESATURA	156
1151	FORATURA	63	1744	FILETTATURA	376	7222	FRESATURA	120
1152	FORATURA	65	1973 - 1978	DIAMENTE	500	7223	FRESATURA	132
1280	FORATURA	61	2567	ALESATURA	455	7224	FRESATURA	145
1290	FORATURA	67	2577	ALESATURA	454	7232	FRESATURA	108
1501	FORATURA	69	2578	ALESATURA	456	7233	FRESATURA	109
1502	FORATURA	70	2579	ALESATURA	457	7240	FRESATURA	121
1503	FORATURA	71	2580	ALESATURA	458	7242	FRESATURA	116
1504	FORATURA	72	2581	ALESATURA	459	7243	FRESATURA	128
1512-1514-1518	FORATURA	69	2713 - 2714	TRONCATURA	329	7244	FRESATURA	143
1525	TRONCATURA	330	2764	ALESATURA	457	7250	FRESATURA	162
1527	TRONCATURA	332	4001	ALESATURA	426	7253	FRESATURA	138
1528	TRONCATURA	331	4005	ALESATURA	434	7254	FRESATURA	147
1531	TRONCATURA	318	4007	ALESATURA	436	7264	FRESATURA	146
1533	TRONCATURA	320	4008	ALESATURA	444	7265	FRESATURA	166
1534	TRONCATURA	326	4261 - 4264	ALESATURA	450	7273	FRESATURA	140
1537	TRONCATURA	327	4271 - 4274	ALESATURA	451	7305	FRESATURA	111
1539	TRONCATURA	323	4361	ALESATURA	446	7306	FRESATURA	113
1640	TRONCATURA	328	4364	ALESATURA	452	7307	FRESATURA	114
1660	FILETTATURA	383	4371	ALESATURA	448	7308	FRESATURA	115

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7315	FRESATURA	112	26500 L	DIAMENTE	497
7323	FRESATURA	141	70070 PCD	DIAMENTE	485
7333	FRESATURA	133	70170 DIA	DIAMENTE	486
7342	FRESATURA	118	70170 PCD	DIAMENTE	484
7343	FRESATURA	128	72310 DIA	DIAMENTE	477
7353	FRESATURA	164	72420	DIAMENTE	479
7442	FRESATURA	157	72421-SH-DIA	DIAMENTE	478
7443	FRESATURA	158	70320 DIA	DIAMENTE	482
7453	FRESATURA	160	70320-SH PCD	DIAMENTE	481
7520	FRESATURA	149	70330 DIA	DIAMENTE	483
7532	FRESATURA	176	70520	DIAMENTE	480
7542	FRESATURA	178	70600 DIA	DIAMENTE	476
7543	FRESATURA	136	70600 PCD	DIAMENTE	474
7552	FRESATURA	168	70630 PCD	DIAMENTE	475
7554	FRESATURA	167	76230 DIA	DIAMENTE	487
7560	FRESATURA	148	76231 DIA	DIAMENTE	488
7561	FRESATURA	110	80000	DIAMENTE	493
7563	FRESATURA	139	81000	DIAMENTE	189
7565	FRESATURA	169	82000	DIAMENTE	491
7572	FRESATURA	127	MINI MORSA	USURA	525
7582	FRESATURA	126	PALPATORI E TAMPONI	USURA	524
7583	FRESATURA	137	SETS DE SET DI TAMPONI	FILETTATURA	401
7593	FRESATURA	142			
7623	INCISIONE	297			
7624	INCISIONE	299			
7625	INCISIONE	298			
7626	INCISIONE	303			
7627	INCISIONE	304			
7628	INCISIONE	305			
7632	INCISIONE	302			
7656	INCISIONE	300			
7658	INCISIONE	301			
7702	FRESATURA	161			
7800	FRESATURA	150			
7908	FILETTATURA	386			
7910	FILETTATURA	385			
7913	FILETTATURA	387			
7914	FILETTATURA	390			
7915	FILETTATURA	393			
7918	FILETTATURA	389			
7920	FILETTATURA	388			
7923	FILETTATURA	391			
7925	FILETTATURA	394			
7935	FILETTATURA	395			
7940	FILETTATURA	392			
7985	FILETTATURA	396			
20370	DIAMENTE	498			
20470	DIAMENTE	492			
26420	DIAMENTE	494			
26500	DIAMENTE	496			

