



wiap – kfkok educations project



CH-5745 Safenwil Obersumpfstrasse 11
CH 5745 Safenwil – Schweiz – Suisse - Svizzero – Swiss
Phone: ++ 41 62 752 42 60 Fax ++ 41 62 752 48 61
Website www.wiap.ch www.kfkok.com

Supported by

Wiap AG LTD SA, 6300 Zug, Switzerland
Association kfkok International CH5745 Safenwil, Switzerland

Unterlagen Auszug wi_8_f

Nachfolgend ist ein kleiner Auszug aus unseren Unterlagen die wir laufend erstellen. Wir haben in der Schweiz Sven Widmer, in Vietnam Iris Widmer, Le Tung Hieu und Robinson. In Angola und Vietnam Hans-Peter Widmer Carlos und Yoba. In der Ukraine Aliona und andere Mithelfer.

Zur Zeit existieren ca. 200 Blätter Berufsbezogen, Allgemeinbildung u.s.w für neue Berufe berücksichtigt.

Das wichtige, es wird immer alles laufend getestet, bevor es fertig gemacht wird und die 4 Sprachen Lösung im Projekt ist der Kernpunkt, dass man später andere Länder ohne Problem einbeziehen kann.

Unser Ziel, wir wollen mit einfachen Unterlagen an diversen Orten dasselbe ausbilden können. Oft fehlt an einem Ort das Wissen, (z.B Angola % daraus entstand XY2) dann werden neue Blätter gemacht um die Lücke des Ortes aufholen zu können.

Wiap AG LTD SA
and
Verein KFKOK International
Hans-Peter Widmer

Day...21..... Month...01.....Year...2012

DE =		EN =		PT =		VN =		
Technische Information (Mausmappe)		Technic Information (mouse mape)		Informacao Tecnico		Thông tin kỹ thuật		
de= Wärme Ausdehnung	Pro Grad Meter	Kabel_Wire_Fio_Info_Cu		Dây dẫn Kabel_Wire_Fio_Info_Cu		Kabel_Wire_Fio_Info_Cu		lkg= 2.2046 lb
en= Thermal expansion	Per degree, Meter	0.75 mm/2	4 Amp(10)	4 mm/2	20 Amp(34)	35 mm/2	80Amp(135)	1 fuss pfund = 1 ft_lb
pt= Expansao termico	por grau metro	1 mm/2	6 Amp(15)	6 mm/2	25 Amp(44)	50 mm/2	100 Amp(168)	1 Nm= 0,7375621 Foot-Pound
vn= Độ tỏa nhiệt	tính trên độ, mét	1.5 mm/2	10Amp(18)	10 mm/2	35 Amp(61)	70mm/2	125 Amp(207)	1 feed = 12 inch=304,8mm
Stahl_Steel_Ago_Thép	0.012 mm/	16 mm/2	50 Amp(82)	16 mm/2	50 Amp(82)	95mm/2	160 Amp(250)	1 Nm= ft_lb *1,358
Aluminium_Nhôm	0.024mm	25 mm/2	63 Amp(108)	25 mm/2	63 Amp(108)	120mm/2	200 Amp	1 Nm= ft_lb / 0,7375621
DE=	EN=	PT=	VN=	DE=	EN=	PT=	VN=	1 Joule = 1 Nm
Spezifisches Gewicht	Specific gravity	especifico Gravidade	Khối lượng cụ thể	Zylinder Infos	Cylinder facts	Cilindro Informacao	Allg Info Div	Infos thông tin chung
Wasser	Water	Agua	Nước	Durchm./Dia	3 bar	6 bar	1 KW	1.341 HP
Stahl	Steel	Aço	Thép	vn= Thông tin về ống khoan			1 PS / HP	75 Kp/1 Meter / sekunde
Beton	concrete	Cimento	Bê-tông	1	16	53/46	1 PS / HP	735,49 Watt
Sand	Sand	Areia	Cát	7,8	20	82/69	1 Kcahl/h	1,163 Watt
Aluminium	Aluminium	Aluminio	Nhôm	2,4	25	129/108	1 Kp/m/s	8.4322 Kcahl
Messing	Brass	Latão(Bronze)	Đồng	1,8	32	212/182	1 Watt	0.102 Kp/m/s
Blei	Lead	Chumbo	Chì	2,7	40	333/280	1 Watt	0.00136 PS
Holz	Wood	Madeira	Gỗ	8,4	50	517/436	1.163 Watt	1 Kcahl
Diamant	Diamond	Diamante	Kim cương	11,34	60	824/739	1 Kcahl/h	0.00158 Ps
Gewinde	Taps	Rosquear(rosca)	de= Berechnungs Hilfe	10,18	80	1328/1199	Volumen	Volum tính
Bohrer	Info	Madro	en= Calculation help	3,5	100	2072/1199	Kalkulation	Calculation dung tích
M3	2,5	0,5	pt=	Schrauben	screw	Parafuso	liter	Liter Lit
M4	3,3	0,7	vn=	Information	Information	Qualidade	in fass	in Dram trong thùng
M5	4,2	0,75		M-Gewinde	qualität 8,8	qualität 12,9	r/2 x 3.14 x höhe_high_altura_chiêu cao	Oder_or_cu_hoi coma 2 left in mm
M6	5	1			N 1 / N2	N 1 / N2	dxd x 0.785 x höhe_high_altura_chiêu cao	
M8	6,75	1,25		M3	2440_1.11	4120_1.88	Kw= Nm x Rpm x 3.14/ 30000 = KW	frition dry oel
M10	8,5	1,5		M4	4230_2.55	7140_4.3	Nm= KW/RPMx30000/3.14_NM	Stahl Grauguss 0,18 0,01
M12	10,2	1,75		M5	6910_5.11	11650_8.45	KW zu KVA= KV, KVA=80% KW	
M16	14	2		M6	9760_8.6	16450_14.5	Ampere= Watt/Volt 1 Phase=)Ampere	
M20	17,5	2,5		M8	17900_21	30200_35	Ampere= Watt/Volt / 1.73= Amp 3 Phase	
M24	21	3		M10	28500_42	48100_70	V= Watt/Ampere (info / = :)	
M30				M12	41500_72	70000_121	U =Volt = Resistz U=RxI	statyt frict dry
				M16	78300_174	132000_295	R = Resistant = \ R=U:I	steel/steel 0,08-0,25
				M20	122500_340	206000_570	I =Ampere= Vol I=U/R	dynm frict dry
				M24	176000_580	297000_980	P = Watt P=UxI U= P/I I= P/U	steel/steel 0,06 - 0,20
de= Faustregel für Kernloch Durchmesser M_ Minus Steigung = Durchmesser			1 ft_lb= 1 Nm * 0,7375621		1 Nm = 98,665 Gramm			
en= Rule of Thumb core hole minus slope (M20 - 2.5 = 17.5)			1 ft_lb= 1 Nm / 1.358		9.80665 Nm 1 Kp			
pt= Regra: do ouro para o diametro da broca e sempre negativa Gradiente M (exemplo M20 - 2.5 = 17.5)			1 lb= 1 Pfund		1 kN = 1000N = 100 Kg			
vn= Quy luật đo đường kính lỗ khoan chính M_ Minus độ nghiêng = đường kính			1 lb= 1 Pfund		10 kN= 10000N = 1000 kg			
			1 l0= 0.453 kg		1 JOULE = 1 Nm			
gezeichnet: HPW	Datum:		education project	Technische Informatio	translate/en_ds/p_ct/vn_ro	origin: WIAP KFKOK		
Aenderung: an	Datum:	12.11.2011	WIAP KFKOK	Technic Information	qrev4b	datei_wi_8_f_1_6_a2_qrev4_de_en_pt_vn_Te		
Aenderung: control 2	Data:		Safenwil Schweiz	spear 2	www.wiap_ch	idee of / from: HPW		

DE=		EN=			PT=				VN=				
Schnittmeter Info		Cutting Speed Info			Informacia				tiếng việt or other				
A	B	C	D	E	F	G	H	I	K	L	M	N	
1	Meter per Minute		de=	500 N/mm ²	500-800	800-1200	Stahl	Stahl			Legierung	PVC	
2	Meter Minute		en=	Steel	Steel	Steel	Stainless Steel	Tool Steel	Iron Casting	Brass	Aluminium	Plastic	
3	Metros / min.		pt=	Aco	Aco	Aco	Aco Inoxida	Aco Ferramenta	fondogao cinza	Lafao	Aluminio	Mat.Plastico	
4	Mét/ phút		vn=	Thép	Thép	Thép	thép không r	thép dụng cụ	gang	Đồng thau	Nhôm	Nhựa	
5	DE=	EN=	PT=	VN=	500 N/mm ²	500-800	800-1200						
6	HSS, Hochleistungs	HSS, High Cutting Steel	Aço Rapido	Thép gió	24	18	12	8	12	18	50	70	45
7	HSS Tin	HSS Tin	Aço Rapido com cobre	Thép gió mỏng	32	24	15	10	15	24	70	93	60
8	HM, Hartmetall	HP, Carbide	Metal duro	Hợp kim	100	72	48	30	48	72	280	280	180
9	Drehen aussen	Turn outside	Tornear externo	Tiện ngoài	100%	100%	100%	100%	100%	100%	100%	100%	100%
10	Drehen innen	Turn Inside	Tornear interno	Tiện trong	80%	80%	80%	80%	80%	80%	80%	80%	80%
11	Einstechen	Groove	Tornear entahle	Xoi rãnh	35%	35%	35%	35%	35%	35%	35%	35%	35%
12	Bohren	Drilling	Furar	Khoan	100%	100%	100%	100%	100%	100%	100%	100%	100%
13	Aufbohren	Biger Bore	Alargar furo	khoan lỗ lớn	66%	66%	66%	66%	66%	66%	66%	66%	66%
14	Flachsenken	Counterbore	Facear plano	Lỗ phẳng	66%	66%	66%	66%	66%	66%	66%	66%	66%
15	90° Senken	90 degree sinks	Chanfrar 90°	Lỗ 90 độ	33%	33%	33%	33%	33%	33%	33%	33%	33%
16	Reiben	Reamer Tool	Alargar Escarear	Đoa	33%	33%	33%	33%	33%	33%	33%	33%	33%
17	Gewinde schneide	Thread Cutting	Fazer rosca	Làm răng	33%	33%	33%	33%	33%	33%	33%	33%	33%
18	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Bohrer Drehzahl Drill Speed</p> <p>$\text{Drehzahl} = \frac{3.14 \times \text{Umfang}}{\pi}$</p> <p>Umfang Bohrer = Scope Drill</p> <p>HSS High speed steel 24 m / Min = 24000 mm</p> <p>Umfang = Scope</p> <p>Umdrehung RPM Bohrer Drill</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Spindle Drehzahl für HM Platten Spindle Speed for carbide Insert</p> <p>$\text{Drehzahl} = \frac{3.14 \times \text{Umfang}}{\pi}$</p> <p>Umfang Dreh Durchmesser = Scope Turn Dia meter</p> <p>HM Hartmetall 100 m / Min = 100 000 mm</p> <p>Carbide Insert =</p> <p>Umfang Dreh Durchmesser = Scope Turn Dia meter</p> <p>Umdrehung Spindel RPM Main Spindle</p> </div> </div>												
design:	hpw	Datum: 2009	education project	Schnittmeter Info	translate/en_iwhp/p_cu/vn_ha				orign:wiap_kfkok				
Aenderung:	iw,sw	Datum:4.9.2011	WIAP KFKOK	Cutting Speed Info	qrev13				datei_wi_8_f_1_3_b6				
Aenderung:	iw	Datum: 13.11.2011	Safenwil Schweiz	old wi_8_f_3_a	www.wiap.ch				idee of / from hpw				

DE=	EN=	PT=	VN=
Rechnen Test XY01	Leveltest Test XY01	teste de nível teste XY01	Toán kiểm tra XY01

XY_1_1 700 USD + 30 USD - 50 US =

XY_1_2
 de= Du hast 25 Freunde. Jeder braucht 25 USD und 3 USD.
 Wieviel Geld brauchen sie zusammen?
 en= You have 25 friends. Each need 25 USD and 3 USD.
 How much they need together?
 pt=
 vn= Bạn có 25 người bạn . Mỗi người cần 25 USD và 3 USD.
 Hỏi họ cần bao nhiêu?

XY_1_3
 de= Du zahlst jeden Monat für eine Versicherung 7 UDS und 70 Cent.
 Wieviel ist das nach 27 Jahren (ohne Zins)?
 en= Every month you pay for a insurance 7 USD and 70 cents.
 How much will it be after 27 years (without interest)?
 pt=
 vn= Mỗi tháng bạn phải đóng bảo hiểm 7 USD and 70 cents.
 Vậy bạn phải nộp bao nhiêu tiền trong 27 năm?

XY_1_4
 de= Du und Deine 7 Freunde gewinnen USD 250'000. Wieviel bekommt jeder?
 en= You and your friends win USD 250000. How much will have all of you?
 pt=
 vn= Bạn và 7 người bạn của bạn trúng thưởng 25.000 USD . Mỗi người sẽ có bao nhiêu USD?

XY1_5 $77 / (:)3 * (x)9 * (x)9 + 200 =$

XY1_6 3/4 of 100 USD =

XY1_7	DE	EN	PT	VN	USD	
4	Stühle	chairs	cadeiras	Ghế	31	=
5	Betten	beds	cama	Giường	120	=
5	Bettinhalt	bed content	conteúdo cama	Giường chứa	80	=
1	Küche	kitchen	cozinha	nhà bếp	120	=
	TOTAL	totally	total	hoàn toàn		=

XY_1_9
 $50 * (x) 1.8 =$
 $50 / (:) 0.3 =$
 $50 / (:) 2.5 =$

XY_1_11
 de= In Deinem Haus hat es 7 Lampen. 4 mit 100 Watt und 3 mit 60 Watt. Sie brennen 300 Std./monat. 1000/h Watt kosten 0.15 USD. Was kostet es total?
 en= In your house you have 7 lamps. 4 with 100 Watt; 3 with 60 Watt. They burn 300 h/mont. 1000 watt/h cost 0.15 USD. Total costs are:
 pt/vn
 not translate
 learn english
 thanks

XY_1_8 write the right result in the black fields. (all under 10, without calculator)

1	2	3	4	5	6	7	8	9	10
7	14	21	28	35	42	49	56	63	70
9									
5									
2									
6									
8									
12									
4									
7									
18									

XY_1_10
 de= Ein Auto braucht auf 100 km 8 Liter. Du fährst 1200 km. Wieviel L brauchst du?
 en= A car need for 100 km 8 liters. For 1200 km you need how much gasoline?
 pt=
 vn= Một xe ô tô chạy 100km tiêu hao 8 lít xăng . Bạn cần bao nhiêu lít xăng cho 1200 km bằng xe ô tô?

Start Time		Student Name		Datum		Doc Name	Test XY01 Leveltest
Finish Time		Student Nr.		Teacher Name		Doc Nr	Wi 8 f 45 e1
Total Time		Sign.		Sign.		Design	hpw, wiap kfkok education

DE =	EN =	PT =	VN =
% Kalkulation Test XY 02	% Calculation Test XY02	Teste% Cálculo XY02	% Tính toán thử nghiệm XY02

Wiki info	
A	$100\% = \frac{100}{100} = 1$
B	$1\% = \frac{1}{100} = 0,01$
C	$75\% = \frac{75}{100} = \frac{3}{4} = 0,75$
D	25 % = 25 /(:) 100 or *(x) 0.25 (or /(:) 4
E	

	24000 mm (24M) = 100 %	Ergebnis? result ?
1	80% from/aus 24000mm / 24000x 0.8 =	
	100 % + 25% = 125% = 1,25	Ergebnis? result ?
2	100Usd x 1.25= 125 Usd	
3	125 (-25% 0.75) Ergebnis result?	
4	125 (-20% = 0.8) Ergebnis result ?	
5	24m = 24000 mm (33% = 0.33) Ergebnis result?	
6	18m = 18000mm (65% = x ???) Ergebnis result?	
7	24000 mm 10 % weniger/less = (minus) Ergebnis result?	
8	100M Min 60% weniger/less Ergebnis/result M/ Min = (minus)	

9	200% from 55 Usd=	
10	77 USD = % 20 % 100%=	
11	5 USD = ist 5 % 100%=	
12	22 % from 55 USD=	
13	25 % from 770	
14	71% from 9	
15	320% from 86	
16	1% from 100	
17	Gesamt/Total?	
	from Pos 13 to Pos.16	
	all ok + 3 points	
	total points	

unser Weg Ist/our way is		
%	* (x)	factor
D 100%	* (x)	1
E 10%	* (x)	0.1
F 30%	* (x)	0.3
G 300%	* (x)	3
H 77%	* (x)	0.77
I 177 %	* (x)	1.77
K 5%	* (x)	0.05
L 22%	* (x)	0.22

Plus 25% = * (x) 1.25
Minus 25% = * (x) 0.75
Plus 200% = * (x) 2.0
Minus 70 % = * (x) 0.3

de= alte Lehrbücher x computer * : computer /
en= old textbooks x * Computer : computer /
pt= ivros antigos x * Computador : computador /
vn= sách giáo khoa cũ x * Máy tính : máy tính /

Start Time	Student Name	Date	Doc Name	Test XY02 % Test
Finish Time	Student Nr.	Teacher Name	Doc Nr	Wi 8 f 45 e2
Total Time	Sign.	Sign.	Design	hpw, wiap kfkok education

DE=

EN=

PT

VN

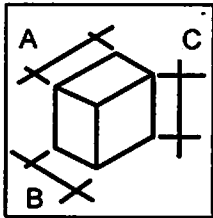
Test XY03

test XY03

teste XY03

Kiểm tra XY03

Xy_3_1



A = 290 mm
B = 900 mm
C = 750 mm

Aluminium

Kg? =

referenz doc= wi_8_f_1_6_a2

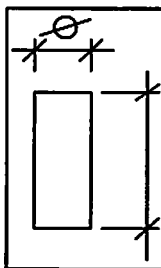
referenz doc= wi_8_f_1_3_b6

XY_3_2



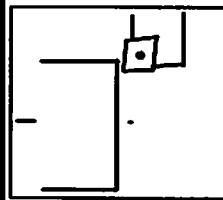
Inox
Diameter 7.5
(N) RPM ? =

WY_3_6



Diameter 450 mm
Height 1200 mm
Steel
Kg? =

XY_3_3



Diameter 325
Aluminium
(N) RPM ? =

XY_3_4

Leveract factor?
Wi_8_f_1a
A = 12 mm
B = 3000mm
C = 68 kg
D ? (press) = kg

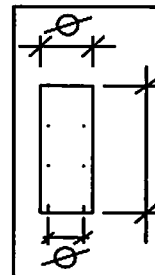
short
long
your wight

XY_3_5



Diameter 55mm
Steel 500 to 800 Nm
(N) RPM ? =

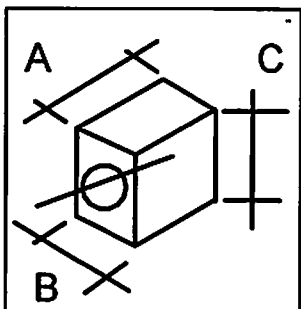
XY_3_7



Tube
Diameter outside 500 mm
Diameter inside 450 mm
High 720 mm
Aluminium ? =

Kg

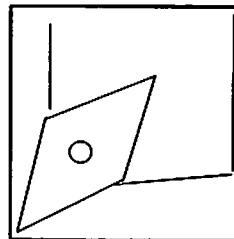
Xy_3_8



A = 1000 mm
B = 800 mm
C = 1750 mm
hole = 650 mm

Material Wood
Weight? =

XY_3_9



DNMG 150412

D=
N=
M=
G=
15=
04=
12=

referenz doc= wi_8_f_1_4_C

referenz doc= wi_8_f_1_4_b

1=

2=

3=

4=

5=

6=

7=

8=

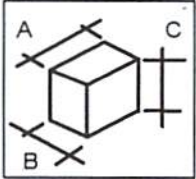
9=

jeder richtige 2 punkte

each right = 2 Point


















total

Start Time:	Student Name	Datum:	Doc Name	Test XY03
Finish Time:	Student Nr.	Teacher Name:	Doc Nr	Wi 8 f 45_e3
Total Time:	Sign:	Sign:	Design	how: wian kfkok education

DE=		EN=		PT		VN																														
Test XY04		test XY04		teste XY04		Kiểm tra XY04																														
<p>xy_4_1</p> <p>500 RPM</p> <p>Diameter 75 mm</p> <p>Meter / Minute? m/Min</p>	<p>xy_4_2</p> <p>320 RPM</p> <p>Diameter 210mm</p> <p>Meter Min</p> <p>referenz doc = wi_8_f_1_3_b6</p>	<p>xy_4_3</p> <p>2000 Liter</p> <p>A= B= C=</p>  <p>referenz doc = wi_8_f_1_6_a3</p>	<p>xy_4_3</p> <p>M20</p> <p>Drill</p> <p>Diameter=</p> <p>ref doc = wi_8_1_6_a1</p>	<p>xy_4_5</p> <p>1 Liter KG?</p> <p>Steel Kg</p> <p>Wood Kg</p> <p>Aluminium kg</p>																																
<p>xy_4_5</p> <p>referenz doc = wi_8_f_1_3_b6</p>	<p>xy_4_6</p> <p>1 Inch =</p> <p>12.5 Inch is=</p> <p>referenz doc = Wi_8_f_1_19_o1</p>	<p>xy_4_7</p> <p>4 Bolt Material 8,8</p> <p>M20</p> <p>Press N =</p> <p>referenz doc = wi_8_f_1_6_a2</p>	<p>1=</p> <p>2=</p> <p>3=</p> <p>4=</p> <p>5=</p> <p>6=</p> <p>7=</p> <p>8=</p> <p>9=</p>																																	
<p>Xy_4_8</p> <table border="1"> <tr> <td>Meter Minute m/Min Turn HSS Inox</td> <td>Meter Minute m/Min Turn HSS Steel Iron Casting</td> <td>Meter Minute m/Min Turn HSS Steel Steel 1100 N</td> <td>Meter Minute m/Min Turn HSS Steel Aluminium</td> </tr> <tr> <td>≡</td> <td>≡</td> <td>≡</td> <td>≡</td> </tr> <tr> <td>m / min</td> <td>m/min</td> <td>m/min</td> <td>m/min</td> </tr> </table> <p>referenz doc = wi_8_f_1_3_b6</p>	Meter Minute m/Min Turn HSS Inox	Meter Minute m/Min Turn HSS Steel Iron Casting	Meter Minute m/Min Turn HSS Steel Steel 1100 N	Meter Minute m/Min Turn HSS Steel Aluminium	≡	≡	≡	≡	m / min	m/min	m/min	m/min	<p>XY_4_9</p> <table border="1"> <tr> <td>Diameter</td> <td>80 g6</td> <td>min</td> <td>.....</td> </tr> <tr> <td></td> <td></td> <td>max.</td> <td>.....</td> </tr> <tr> <td>Diameter</td> <td>30 H7</td> <td>min</td> <td>.....</td> </tr> <tr> <td></td> <td></td> <td>max.</td> <td>.....</td> </tr> </table> <p>referenz doc = wi_8_1_19_b3</p>	Diameter	80 g6	min			max.	Diameter	30 H7	min			max.	<p>jeder richtige 2 punkte each right = 2 Point</p> <table border="1"> <tr> <td>All Right + 2 Point</td> <td>Total = 20</td> <td>Total = 20</td> </tr> </table>				All Right + 2 Point	Total = 20	Total = 20
Meter Minute m/Min Turn HSS Inox	Meter Minute m/Min Turn HSS Steel Iron Casting	Meter Minute m/Min Turn HSS Steel Steel 1100 N	Meter Minute m/Min Turn HSS Steel Aluminium																																	
≡	≡	≡	≡																																	
m / min	m/min	m/min	m/min																																	
Diameter	80 g6	min																																	
		max.																																	
Diameter	30 H7	min																																	
		max.																																	
All Right + 2 Point	Total = 20	Total = 20																																		
Start Time :	Student Name	Datum:	Doc Name	Test XY03																																
Finish Time:	Student Nr.	Teacher Name:	Doc Nr	Wi 8 f 45 e3																																
Total Time:	Sign.	Sign.	Design	hpw, wiap kfkok education																																

DE=		EN=		PT		VN			
Test XY06		test XY06		teste XY06		Kiểm tra XY06			
1		2		3		4		5	
1 bag clothes ist 50 lb (50 pound) kg = doc help= 1_6_a2		500 mm 700mm clothes box is 350mm Liter is = (dm/3)		Pos 1 and pos 2 what the spez wigth is clothes wigth of 1 m/3 Clothes is?		Angle Calc a= 220 c=300 b=? doc help = 1_7_c10		Angle Calc a= 300 b= 400 C= doc help = 1_7_c10	
6		7		8		9		10	
Piston Diameter 400 mm 50 bar N=		You design 1 lathe machine 5 m/2 diameter 200 mm turn witch kw machine need kw=		efficiency diesel motor = %		Frition Steel to Steel dry = %		Frtition Steel Ptfe= doc help = 1_7_c10	
11		12		13		14		15	
5 m/2 turn steel about normal steel N=		1 pce 5000 kg steel to steel move sidewarts how mutch N ?		1 pce 10000 kg steel to ptfe move sidwaerts how mutch N ?		4 Bolt with M16 8.8= 78300 N N=		side frition from pos 14 steel to steel dry N=	
16		17		18		19		20	
Angle Calc a= 220 Alpha = 40° mm/2= doc help = 1_7_c15		You design 1 lathe machine torq caculation / Carbide 5 m/2 diameter 200 mm turn N = SpindleMotor		witch kw you need from Pos 17 kw=		witch ampeere is it? Amp=		witch diameter spindle motor cable ? mm/2	
Start Time :		Student Name		Datum:		Doc Name		Test XY06	
Finish Time:		Student Nr.		Teacher Name:		Doc Nr		Wi_8_f_45_e6	
Total Time:		Sign.		Sign.		Design		hpw, wiap kfkok education	

DE=		EN=		PT		VN			
Test XY11		test XY11		teste XY11		Kiểm tra XY11			
1		2		3		4		5	
de= Wärme Ausdehnung	Pro Grad Meter	de= Wärme Ausdehnung	Pro Grad Meter	de= Spezifisches Gewicht		de= Spezifisches Gewicht		de= Spezifisches Gewicht	
en=Thermal expansion	Per degree, Meter	en=Thermal expansion	Per degree, Meter	en= Specific gravitty		en= Specific gravitty		en= Specific gravitty	
pt=Espansao termico	por grau metro	pt=Espansao termico	por grau metro	pt= especifico gravidade		pt= especifico gravidade		pt= especifico gravidade	
vn=Độ tỏa nhiệt	tính trên độ, mét	vn=Độ tỏa nhiệt	tính trên độ, mét	vn= Khối lượng cụ thể		vn= Khối lượng cụ thể		vn= Khối lượng cụ thể	
de=Stahl en=Steel	mm/m	de/en=Aluminium	mm/m	en=Water	kg/dm/3 (L)	de=Stahl en=Steel	kg/dm/3 (L)	de/en=Aluminium	kg/dm/3 (L)
pt=Aço		pt = Aluminio		pt=Água		pt=Aço		pt = Aluminio	
vn=Thép		vn=Nhôm		VN=Nước		vn=Thép		vn=Nhôm	
6		7		8		9		10	
de =Gewinde	en =Taps	de =Gewinde	en =Taps	de =Gewinde	en =Taps	Zylinder	Cylinder	Zylinder	Cylinder
Bohrer	Info	Bohrer	Info	Bohrer	Info	Infos	facts	Infos	facts
pt=Rosquear(rosca)	vn= Khoan	pt=Rosquear(rosca)	vn= Khoan	pt=Rosquear(rosca)	vn= Khoan	Cilindro	Thông tin về ống	Cilindro	Thông tin về ống
Madro	xoắn ốc	Madro	xoắn ốc	Madro	xoắn ốc	Informacao	khoan	Informacao	khoan
M20 Drill =	mm=	M6 Drill =	mm=	M8 Drill =	mm=	3 bar 16 mm	N1 = N2 =	6 bar 80 mm	N1 = N2 =
11		12		13		14		15	
de= Schrauben	en= screw	de= Schrauben	en= screw	de= Schrauben	en= screw	de= Schrauben	en= screw		
Information	Information	Information	Information	Information	Information	Information	Information		
pt= Parafuso	vn= Thông tin về	pt= Parafuso	vn= Thông tin về	pt= Parafuso	vn= Thông tin về	pt= Parafuso	vn= Thông tin về	KW	KVA
Qualidade	khoan	Qualidade	khoan	Qualidade	khoan	Qualidade	khoan	100%	%=
8.8 M20	N1 = N2 =	12.9 M20	N1 = N2 =	12.9 M8	N1 = N2 =	8.8 M12	N1 = N2 =		
16		17		18		19		20	
1 PS /HP	m/ s kp=		KW=		Amp=		Nm=	M 50 x 4	Drill ? =
21		22		23		24		25	
1 Motor 1400 RPM	Nm=	1 Motor 1400 RPM	Amp=	100 Amp	mm/2 =	35 Amp	mm/2 =	35 Amp	mm/2 =
26		27		28		29		30	
1 atü/ bar= ?	Kp / cm/2	1 Quadrat to Diameter = % ?		Diam 500, High 750 Liter?		1 lb =	kg?	1 Inch =	mm?
Start Time :		Student Name		Datum:		Doc Name		Test XY11 Mousmape	
Finish Time:		Student Nr.		Teacher Name:		Doc Nr		Wi 8 f 45 e11	
Total Time:		Sign.		Sign.		Design		hpw, wiap kfkok education	

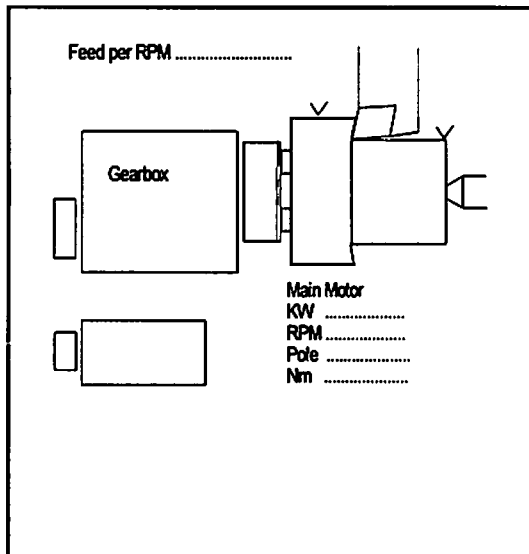
DE =		EN =		PT =		VN =	
% EnglischTest XY 50		english test xy 50		Teste XY50		% Tính XY50	
	It really means?		It really means?		It really means?		It really means?
screwdriver	<input type="radio"/>	turning machine	<input type="radio"/>	Dining table	<input type="radio"/>	welding machine	<input type="radio"/>
wrench	<input type="radio"/>	boring machine	<input type="radio"/>	Workbench	<input type="radio"/>	table machine	<input type="radio"/>
bar clamp	<input type="radio"/>	milling machine	<input type="radio"/>	wardrobe	<input type="radio"/>	socket key	<input type="radio"/>
	It really means?		It really means?		It really means?		It really means?
grinding machine	<input type="radio"/>	boring machine	<input type="radio"/>	bed	<input type="radio"/>	turret	<input type="radio"/>
drilling Machine	<input type="radio"/>	creasing machine	<input type="radio"/>	chair	<input type="radio"/>	tailstock	<input type="radio"/>
scraping machine	<input type="radio"/>	turning machine	<input type="radio"/>	shoe	<input type="radio"/>	machine bed	<input type="radio"/>
	It really means?		It really means?		It really means?		It really means?
flat nose plier	<input type="radio"/>	press	<input type="radio"/>	ventilator	<input type="radio"/>	hand machine	<input type="radio"/>
wrench	<input type="radio"/>	forklift	<input type="radio"/>	combination wrench	<input type="radio"/>	pad saw	<input type="radio"/>
hammer	<input type="radio"/>	truck	<input type="radio"/>	screwdriver	<input type="radio"/>	torque key	<input type="radio"/>
	It really means?		It really means?		It really means?		It really means?
screw	<input type="radio"/>	grinding machine	<input type="radio"/>	tool bag	<input type="radio"/>	bolt	<input type="radio"/>
nut	<input type="radio"/>	bending machine	<input type="radio"/>	tool trolley	<input type="radio"/>	bearing	<input type="radio"/>
pin	<input type="radio"/>	forklift	<input type="radio"/>	tool machine	<input type="radio"/>	wheel	<input type="radio"/>
	It really means?						
pallet truck	<input type="radio"/>						
forklift	<input type="radio"/>						
pad saw	<input type="radio"/>						
Start Time	Student Name			Datum	Doc Name	Test XY02 % Test	
Finish Time	Student Nr.			Teacher Name	Doc Nr	Wi_8_f_45_e2	
Total Time	Sign.			Sign.	Design	hpw, wiap kfkok education	

de=	en=	pt=	vn=
Kalkuliere XY20	calculate XY20	Calcule XY20	tính XY20

Machine where

efficiency
 Ballscrew efficiency 80% Factor 0.8
 Trapezspindle 40 to 50 % Factor 0.5

1 mm/2 calculate 2000N for turn steel



Calculate: Feed force
 Train and pressur force = Torq * (2 * 3,14) / Spindle peach (m) * efficiency
 Spindle Input N * 6,28 / 0.01m * 0.8







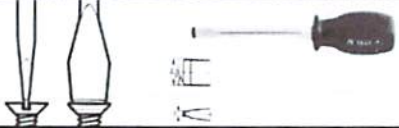







Y1 Y2 Y3 Y4 Y5 Y6
 Feed force = Nm Motor X factor x (2x3,14) / (pitch / m) * efficiency N
 1. Axis (N 19.8) (3) (6.28) / (10 mm=0.01) (0.8) feed pressure






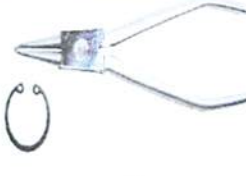

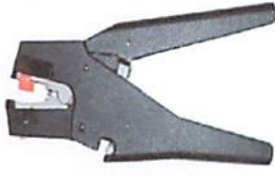
 Feed force = Nm Motor X factor x (2x3,14) / (pitch / m) * efficiency N
 2. Axis (N 19.8) (3) (6.28) / (10 mm=0.01) (0.8) feed pressure

 Y1 * Y2 X 6.28(fix) / Y4 (in m) * Y5 =

	X1 RPM on the Spindle	X2 RPM Main / Motor	X3 Factor /	X4 Nm Motor /	X5 Nm on the spindle / 1000 mm Radius /	X6 Torq / 1000 mm /	X7 Torq / 500 mm /	X8 Torq / 300 mm /
M41 Gear Step 1 Rpm////////
M42 Gear Step 2 Rpm////////
M43 Gear Step 3 Rpm////////
M44 Gear Step 4 Rpm////////
Calculate Formula			X3= X2/ X1		X5= X3 * X4	X6= X5/0.5	X7= X5/0.25	X8= X5/0.15

Start Time :	Student Name	Datum:	Doc Name	Test XY03
Finish Time:	Student Nr.	Teacher Name:	Doc Nr	Wi 8 f 45 e3
Total Time:	Sign.	Sign.	Design	hpw, wiap kfkok education

DE = Sprache 1		EN = Language 2		P = Language 3		VN = Language 4	
Handwerkzeuge 01		Hand tools 01		ferramentas manuais 01		Dụng cụ cầm tay 1	
DE Hammer Formen und Materialien EN Hammer shape and materials P Formas de Martelos e Materiais VN Cán búa và vật liệu làm búa		DE Schlosserhammer EN Peen hammer P Martelo com Pena VN Búa thép đập nóng		DE Nylonhammer EN Nylon Hammer P Martelo de Nylon VN Búa nhựa			
DE Hammer gibt es aus verschiedenem Material: Stahl, Gummi, Nylon, Plastik, Blei, Holz, Kupfer EN Hammers are made of various materials: Steel, rubber, nylon, plastic, lead, brass, wood leather, copper P Os Martelos são fabricados de vários materiais Aço, borracha, nylon, plástico, chumbo, bronze, madeira couro, cobre VN Búa được làm từ nhiều vật liệu khác nhau Thép, cao su, nhựa, chì, da, đồng.....		DE Kupferhammer EN Copper hammer P Martelo de Cobre VN Búa đồng		DE Gummihammer EN Rubber hammer P Martelo de Borracha VN Búa cao su			
		DE Lederhammer EN Leather hammer P Martelo de Couro VN Búa da		DE Bleihammer EN Lead hammer P Martelo de Chumbo VN Búa chì			
DE Schraubenzieher EN Screwdriver P Chave de fendas VN Tuốc nơ vít				DE Hex Schraubenzieher mit Kugelende EN Hex key screwdriver with ball ends P Chave seistavada com rótulas VN Tuốc nơ vít đầu lục giác			
TORX size 3-55 =  PHILIPS size 00-4				DE kurzer Schraubenzieher Knirps EN Gnome screwdriver P Chave estrela Gnome VN tô vít ba ke			
TORX =  PHILIPS							
POZIDRIV size 0-4 =  SLOTTET size 00-9							
POZIDRIV =  SLOTTED				DE Winkelschraubenzieher EN Angle screwdriver P Chave de fendas Angular VN Tuốc nơ vít chữ Z			
gezeichnet: I.Widmer	Datum: 16.06.2011	education project	handwerkzeuge 01	translate/en_iw/p_ct/vn_ro	orign:elektropraktiker buch		
Aenderung: I.Widmer	Datum: 06.09.2011	WIAP KFKOK	handtools 01	Rev_Nr q5	datei_wi_8_f_51_d1		
Aenderung: hpw	Data: 07.09.2011	Safenwil Schweiz	spare 2	www.wiap.ch	idee of / from		

DE = Sprache 1	EN = Language 2	P = Language 3	VN = Language 4		
Handwerkzeuge 02	Hand tools 02	ferramentas manuais 02	Dụng cụ cầm tay 02		
de= Zangen	en= Pliers	pt= Alicates	vn= Kim		
<p>de= Es gibt viele Arten von Zangen. Einige sind für allgemeine Zwecke entwickelt, andere sind für einen bestimmten Zweck entworfen.</p> <p>en= There are many kinds of pliers; some are designed for general purpose gripping, and others are designed for a specific purpose.</p> <p>pt= Existe uma variedade de alicates, alguns são fabricados para vários propósitos de aperto , e outros são para uma finalidade específica.</p> <p>vn= Có nhiều loại kim ; một vài loại được thiết kế theo mục đích kẹp , và một số được thiết kế cho mục đích chuyên dụng.</p>					
 <p>de= Kombinationszange en= Combination pliers pt= Alicates de Combinação vn= Kim vạn năng</p>		 <p>de= Flachzange en= Flat-nose pliers pt= Alicates de bico plano vn= Kim dẹt</p>			
 <p>de= Rundzange en= Round-nose pliers pt= Alicates de bico re vn= Kim đầu tròn</p>		 <p>de= Spitzzange en= Needle-nose pliers pt= Alicates de Bico vn= Kim mỏ nhọn</p>			
 <p>de= Seeger-Sicherungszange aussen en= Clip pliers (outside) pt= Alicates de aperto exterior vn= kim ghép phe (ngoài)</p>		 <p>de= Seeger-Sicherungszange innen en= Clip pliers (inside) pt= Alicates de aperto Interior vn= Kim ghép phe (trong)</p>			
 <p>de= Seitenschneider en= Side-cutting pliers pt= Alicates de corte a lateral vn= Kim cắt</p>		 <p>de= Abisolierzange en= Wire stripper pt= Cortador de Arame vn= Kim cắt và tuốt dây</p>			
gezeichnet: I.Widmer	Datum: 16.06.2011	education project	handwerkzeuge 02	translate/en_iw/p_ct/vn_ro	origin:elektropraktiker buch
Aenderung: I.Widmer	Datum: 06.09.2011	WIAP KFKOK	handtools 02	Rev_Nr qrev3	datei_wi_8_f_51_d2_qrev3
Aenderung: control 2	Data: 27.09.2011	Safenwil Schweiz		www.wiap.ch	idee wiap kfkok