

INTERNATIONAL TOOL & ENGINEERING



Bringing the world to your door

www.internationalte.com





Welcome to International Tool & Engineering

International Tool and Engineering is a full-service supplier of Overseas tooling, specializing in progressive, transfer, and line dies.

We believe our formula of having North American tool makers directly located in Asia, along with a local staff to follow tools from design to delivery, all the while maintaining North American program management located in South Eastern Michigan, sets any project up for success. Our team in the US works directly with the customer base to ensure proper process specific to each design catered to home line press specs.

We work directly with our international team overseeing tool design, build and tryout through to die shipment. (American and Asian). We are a fullservice supplier with over 17 yrs of experience. If there is a need to reduce tooling costs to become more competitive in the marketplace as well as maintaining a tool build to North American standards, ITE is your choice for tooling.

We would be happy to quote any tooling program and review our standards with you.

We look forward to hearing from you.



www.Internationalte.com

Strong American Presence

Our Formula of consistently having full time presence in Asia ensures that the quality and project timing meets our customer's needs.





•Benefits of working with International Tool & Engineering

- Up front engineering and simulation for product feasibility & solutions
- International Tool & Engineering & customer involvement in strip layouts, processing & design buyoff
- International Tool & Engineering to manage the complete tooling program to fulfill the customers requirements of low cost, quality tooling with timely delivery
- Strong presence in Asia to ensure the success of programs as well as strong developed relationships with the tooling facilities, for a team atmosphere to achieve progress and satisfaction of the needs required for overseas ventures
- Weekly progress updates, Tracker, pictures of tool status to ensure the latest updates on the project timeline.
- We provide solid program management and will supply all the needed follow up information that the customer requires and needs to define the project
- Onsite program management personnel in Asia to ensure no delay in communication and needed direction, as well as full home line support per PPAP approvals.
- Design and coordination of tooling build between US and Asia per customer standards
- Strong APQP procedures & documentation in place with well defined milestones that are used as program gates to achieve customer expectations
- Strong Standard training for American build standards to achieve the desired build practices, to meeting the customer's tooling standards.



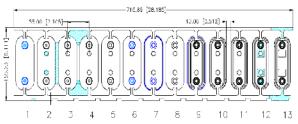
www.Internationalte.com

•From Designs

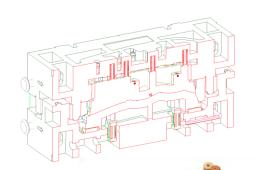


1.BUBBLE 2.NOTCH & PIFROF 3.TRM 4.TRM 5.EXTRUDE 6.PIEROE 6.PIEROE 7.00 N 8. DLE 8.TOTM 10.RESTR KE 11.JDLE 12.PIEROE & SIAVE 13.OUTOFF

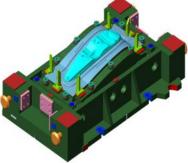
P/N_C131160101300_3mm_A_UM





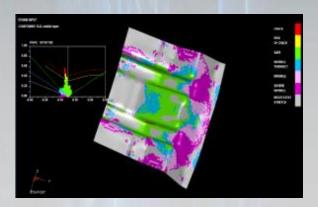




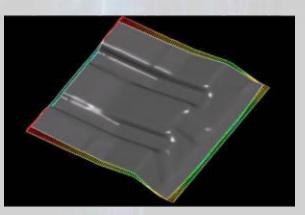


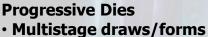


Simulations

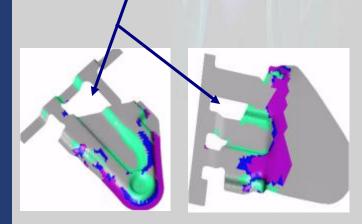


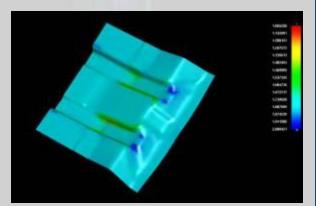
- Dynaform
- Draw analysis
- Bead placement, addendums
- Simulation to Tryout Maps





- Multistage draws/for
- Carrier testing
- Trim development

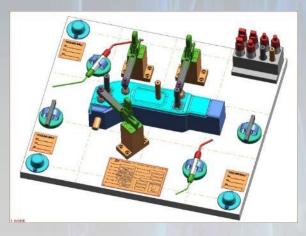






www.Internationalte.com

• Fixtures















To Manufacturing



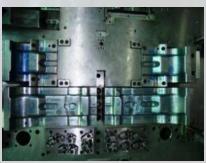
























To Finished Products

International Tool & Engineering is there to deliver you a successful project .

























Below are just a few of our APQP forms used as gates to ensure that we are complying with all of our customer's requirements and expectations.

Approved Materials Used in ITE Tools

ITE	Stand	ard con	nponents an	d die steel	s confir	mation							
		GLO	BAL TOOL STE	FLS COMPA	RISON								
				Equivalent steel									
APPROVED	Hardness	America	Germany	France	U.K	Japan							
STEELS	(HRC)	AISI	DIN	NF	BS	JIS							
SKD11	58″60	D2	1.2379	Z160CDV12	BD2A	SKD11							
Cr12	53″55	D3	1.2080	Z200C12	BD3	SKD1							
P20	28″35 pre-hard	P2074140											
45#		1045	CK45	XC45	080M46	S45C							
A3		1020	СК22	XC18	050A20	S20C							
			Die steels c	onfirmation			I						
	If Casting	, Build	Moly Iron (GM/241)			ng Build	Moly Iron (GM/241)						
	Die so	et	A3		Balanc	e block	45#						
-	Paralle	els	A3		Kee	per	45#						
	Lift pla	ate	P2074140		Trim	punch	D2						
	Stock g	uide	Cr12		Punch	holder	45#						
Lower die	Stop bl	lock	45#	Upper die	Holder ba	ckup plate	Cr12						
	Lower cuttir	ng steels	D2	_	Form	punch	D2						
	Lower back	up plate	45#		Form pur	nch holder	45#						
	Form	die	D2	_	Stri	pper	45#						
	Stand	off	45#		Stripper	windows	P2074140						
	Lift ra	ail	P2074140										
Brand	d of Standa	rd Comp	onents	Р	ayment Term	s: Currend	y USD						
Guide pin a	nd bushing?	Danly		Tooling Payme	nt Schedules	:							
Gas s	pring?	Kaller / Dade	CO	30% Pa	yment	Die Design C	Completion						
	retainer?	Dayton		30% Pa	yment	1st off parts							
	s & Die button?	Dayton		30% Pa		Buyoff at To							
	ie button?	Dayton		10% Pa	yment	Home line Su	upport - 45 days						
	Units ?		sumi + Return										
•	ols ?	Purchased		Fixture Paymer									
	ainers ?	Purchased [•] Lamina	i ype Uniy	30% Pa		Die Design C	•						
	plate? unction box?	Lamina Turck		60% Pa 10% Pa	-		ixture delivery to tool shop						
Sensor and	unction Dox?	TUTCK		IU% Pa	ymeric	nome inte su	Home line Support - 45 days						



Data Control Record

() Intern	ational Tool & Engineeri	ng			STANDARDS H	CEDURE & RECORDS ANDBOOK DOCUMENT VISION No. ME.001 D RECORD				
	RAM MCS		INTERNATIONAL TOOL & ENGINEERING (ITE)							
	T NO. 13385	680								
	URCE ITE -	Chipa	DATA RECEIVED RECORD							
GD&T H Receite		File name		Status	Connents					
6/9/2014	Quote	13385680.01		Quote	Quote Drawing					
8/3/2014	0.002299	13385680.01		current	Release Drawing					

Page 1

CAD	MATH	History

CAD M/	ATH History								
Receive	Rev.	File name	Status	Connents					
6/9/2014	Quote	13385680.01	Quote	Quote Data					
8/3/2014	0.002299			Release Data					



APQP – Strip Review & Approval Form

International Tool & Engineering			ITE BUT-OFF PROCEDURE & RECORDS Standards nanddool document Ite Apap Retision n He.ni43 Description - process & signoff
PROGRAH PART MO. HCS DESCRIPTION DIE SOURCE 0 UTE - Ckine 0	STRIP LATOUT A	IONAL TOOL & ENGIN	GHT PROCESS GUIDE
Taul Tapri Programia Parla Per Sleaks: 2 Sleig Wilk: 8,82 Programian: 5,39 Black aine: 86 Skal Bright: Fred Bright: Die Daill Helsia en Ingerial: Helsia Die Daill Helsia en Ingerial: Helsia Bir Daill an: 8igh Ang Changemer Required: 8a Irrial Cananglian Approach: 94 Cantie Bilen Approach: 94	ianken (Peng nolg) ianken (Peng nolg) ianken (Liae/Teansfer nolg) (Valane) (Appennel)	Plant: Prom Banker: 22 Bod Sine L a W: 102 Rom Sine L a W: 102 Prod Biroslina: R to L Longth Dir Sine: 96 Bonker of Stations: 9 Estimated Toncope: 900 Sparse Required: 00	Slocker Per Hindre 31 ir Weight Bendeinline: 15 Tue Han. Shal Bright: 27.5 Performed Shal Bright: 25 "reformed Perid Bright: 14 Parl Halk Bren. Lui: Phil Sbar Bren. Lui: Phil Tue
Station / Oversition Providing 1 PIERCE 7 PIERCE 2 TRIM I TRIM 3 TRIM-PLG 3 TRIM ISSEP 4 IDLE 10 5 FORM 11 6 RESTRIKE 12			
BEAL PEASE [DP] BIAL Storegik Law Allay [BSLA] Cald Balled av Bal Balled [CB/I OTBER TYPE OF HATERIAL: ABBIAL FOLDHE: 15,000 PER		ige 1	TES RO RA
1 Received releared math da 2 Received releared GD&T dr 3 Received prosr allocation 3 4 If Transfer, Press curves or 5 Received curtamer standar	ta por kick aff? auing filor por kick a ? transfor arm infa ro rdr?		
 6 Ir the blank size less then a 7 Ir the estimated tunnage less 8 Dues the dis size fit the qu 9 Ir there a minumum of me if 9 Ir there a minumum fune if 9 Ir antch, sensur fur mirfeet 10 restrip to strip carrier 10 restion of stamp for tra 	rr aqual to quotadziz, sz than or aqual to qu otad prazz? idla station? d & strip roll back ida ifiad in strip layout? uidth ? ciability idantifiad in liamator uithin the mi nt? stion and minimizad z ortr the bast sinarin?	e? If ant uby? nted size? If ant uby? atified in strip laynut? astrip laynut? inimum carrier dimensions? crap?	
MOTES:	PROCESS / OF	PERATION LATOUT APPROV	<u>st</u>
ITE MFG. ENGINEERING: CUSTOMER PLANT REPRESENTAT TOOL SOURCE REPRESENTATIVE:			Dato: Dato: Dato:



At the time of strip review. ITE will also supply a completed simulation report and if there are part concerns. ITE will also supply part issues and suggested solutions as part of our up-front engineering procedures

SEE BELOW EXAMPLES





www.Internationalte.com

EXAMPLE

PART INFORMATION 56960-01



INTERNATIONAL TOOL & ENGINEERING

CURRENT PRODUCT / DEVELOPMENT

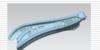
Part Number	56	596	0-0	1		Name								
Program	PART INFORMATION	See information in next page				Date Received	2014.07.23							
Development Lvl.	Ug / Catia	Sin Ver			RE	VOC)	Date Created	2014.07.23					
Program Manager	jack	CAD De			Au	toFo	rm4.6	FEA Analyst	Kevin					
	SIMULATION PARAMETERS													
	Material Info	ormati	tion				Simulation Summary							
Material Spec	CR980T		Material Type Steel											
Material Thickness	T=0.8		Material ** Source											
Yield	545		Friction											
tensile	1067		K - Value											
R- Bar	**		n – Va	lue										
_					_			FLD	STATUS					
	are:		2		2									



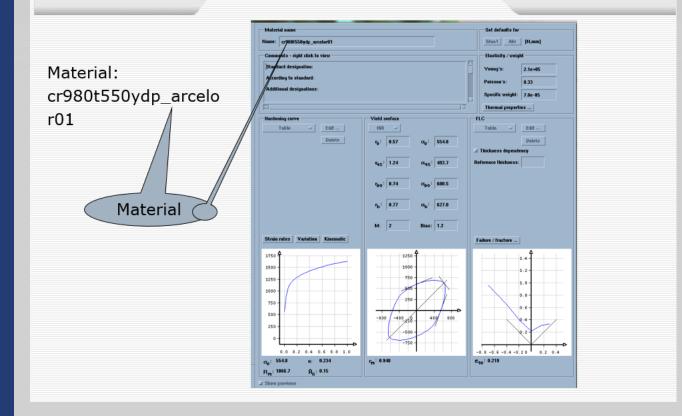
www.Internationaltecom

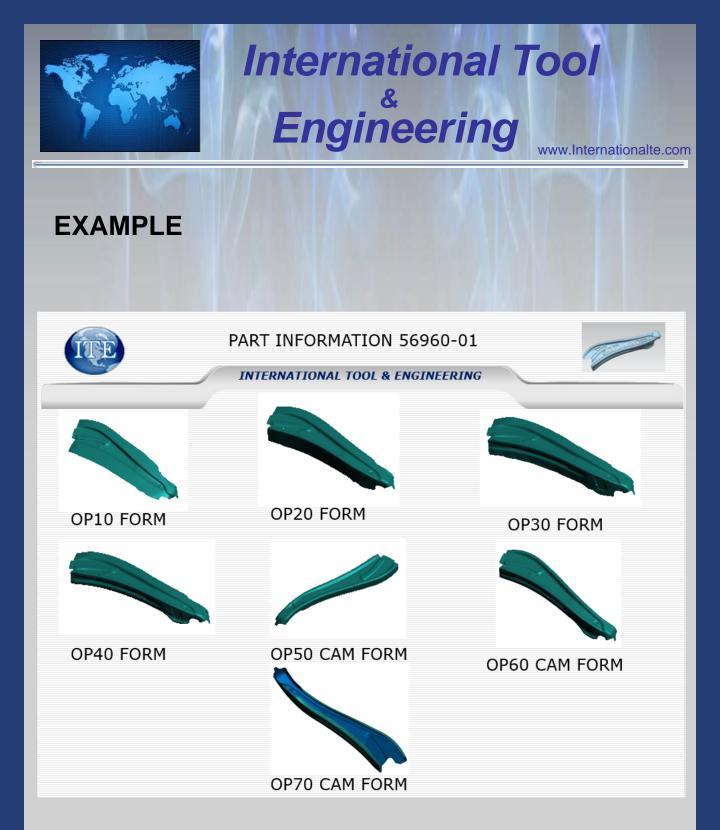
EXAMPLE

PART INFORMATION 56960-01



INTERNATIONAL TOOL & ENGINEERING



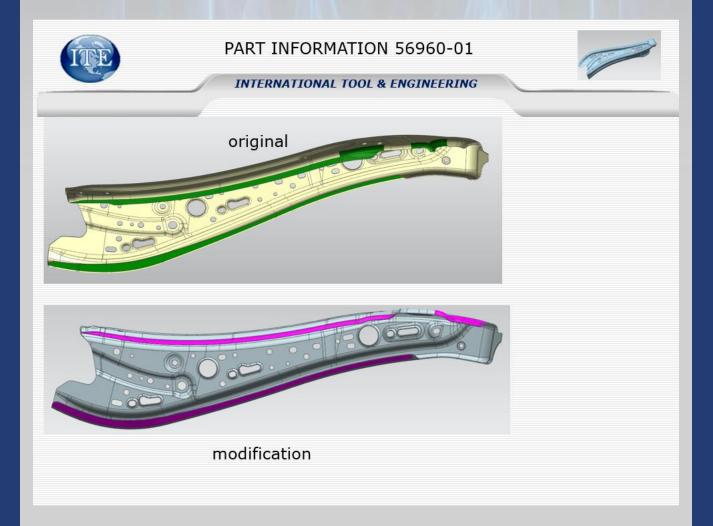








EXAMPLE – PART CONCERNS



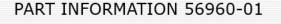


EXAMPLE – PART CONCERNS

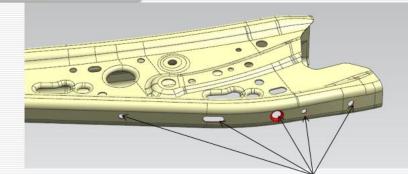




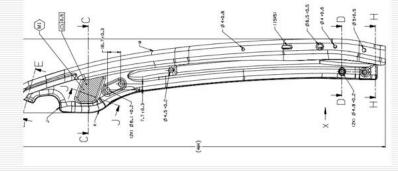
EXAMPLE – PART CONCERNS



INTERNATIONAL TOOL & ENGINEERING



Cam form (Flange) with cam hole distance are not enough, we want apply cam hole tolerance to +/-1.0mm.Pls confirm.





After Strip Approval, ITE will then proceed unto designs, ITE will schedule a 50% review with customer with extensive documentation capturing the customers requested corrections. Once corrections are completed, ITE will then schedule a 100% review with the customer

APQP - Design Review Form

International Tool & Engineering		ITE BUY-OFF PROCEDUR STANDARDS HANDBOOK ITE'S APQP REVISION No DESCRIPTION - DESIGN (DOCUMENT). ME.013										
PROGRAM MCS PART NO. 13385680	INTERNATIONAL TOOL & ENGINEERING (ITE)												
DESCRIPTION 0													
DIE SOURCE ITE - China													
NOTE: It is tool shop's responsibility to ensure to me	eet all aspects of ITE's Design and Build	l Standards.											
DE	SIGN REVIEW / DESIGN AP	PROVAL FORM	YES NO N/A FIX										
DESIGN ITEMS:													
1 Is die information called out?													
Part Number ?	56961												
Part Name ?	Seat bracket												
Part Level?	Math LvI:	GD&T LvI:											
Designed Metric/Imperia	al ? metric												
Progression and coil wid	th? 780 X 230												
List overall die size	Wide 680 x I	Length 1450 x Sht. Ht. 965.2											
Material size used at buy	yoff Wide x	Length x Gauge											
2 Does overall die size match Die Press	s Spec Sheet?												
3 Does die design show die open?	1												
4 Is there sufficient clearence for autom	ation to remove part out of die?												
5 If die is hand transfer is there enough	-												
6 Are heels, or guide pins enter prior to													
7 Will one heel and/or guide pin be offs													





Below is example of the design review correction record

APQP – Review Record

ITE BUY-OFF PROCEDURE & RECORDS STANDARDS HANDBOOK DOCUMENT International Tool & Engineering ITE's APQP REVISION No. ME.012 DESCRIPTION - DIE CORRECTION RECORD PROGRAM GMEVO FD 56730 Design Corrections PART NO х DESCRIPTION DIE SOURCE ITE China **Build Corrections** LOCATION China NOTE: Please see original hard copy for the complete buy off checklist Need to protect the tapping unit, Need to add wearplate to heel block, make 77777777 Customer want the lower die shoe to cam retainer longer and move the other 10 add 6inches each side to width and retainer down, then also add another screw (3 upper 3 inches each side to width. screws per retainer) strip width is larger than quoted, Need to make this fill slide cam as a pivot form customer looses money need to make to fill part before camflage enters strip size same as your quoted size (quoted Size 141 x 523) Need to change strip carrier, customer rejected it. Also need to change need to add more gas spring to balance out orientation of part. So that the carriers lifter, also need to move angle back to help part fall off of tool are pulling the part and not pushing the part Rotat part 180 degrees, then change Make detail on solid detail with an insert for carrier to a one carrier per side and the 13 adjustability on the one side. This will make it one carrier will be a pinch trim stronger Make ALL trim punches with minimum of 2 4 Make the inserts availbalr from top screws no punches can be longer than 3 inches long and the bondy must be minimum of 1/2 in 15 Need to ad part ejectors diameter. Build riser post to make smaller and chane body diameter of small punches

Customer wants 4 screws in each of 6 the heel post

2

3

remove this parellel and replace it with solid 16 block backed up to press ram



ITE will provide weekly status up-dates along with an open issue log and picture reports of the tools progress as evidence of the timeline and status

Please see the below examples

APQP – Weekly Status Report

		Project M	lanage	ment			1																					
#	Part Humbo	r, Hamo & Matorial Typo	Roviria a Lovol	Skotch	Dio Typo	status	schedule	Stip Layout	Sttp Layout Approval approval	60% Die De sign Re view	100% Die De sign	100% Die De sign Approval	TryoutMati Ordered	NCB Inv order	100% Detailing Complete	Steel Received	Purcha sed Compnents Received	Shoe s Complete	Strippers Complete	2 D De till s Complete	3D Details Complete	Machining Complete	form Staton Assembly	fryoutMatt Rec'd	Form Staton Tryout	Rnal Assembly	Check Rature Received	CMM Points Recid/progr am critten
	Part #	AMS67152/187		100		PI	lan	6-10	6-15	7-9	7-19	\$-7		\$-11	\$-20	‡-15	9/10	9/5	974	\$-22	9/5	9/7	9/9		9/11	9/15	9/2#	9/16
1	Part Hame	REINF-FRT S/D MIRROR PATCH LH/RH	001.00299 9		praq. 2-aut camman		tual	6-10	6-25	7-10	7-31	\$-7		\$-11	\$-21	\$-20		974	9/5	\$/25	9/5	9/5	9/11		9/11			
_	Hatorial	GMW2MSTS CR3 HD60G/60GU		-		Par	cante	100×	100×	100×	100×	100 Z		100×	1002	100×	60×	1002	100%	100%	100%	100×	1002		1002	70%		
	Part #	23157207/0	001.00299	100	prog. 2-out	P	lan	6-10	6-15	7-9	7-19	\$-7		8-11	8-20	\$-15	9/10	9/5	974	\$-22	9/5	9/7	9/9		9/11	9/15	9/28	9/16
2		BRACKET MNT GMW2MSTS OR3	9		Rit.	Ac	tual	6-10	6-25	7-10	7-31	8-7		8-11	8-21	8-20		9/4	9/5	8/25	9/5	9/5	9/11		9/11			
-	Tree	HD60G460GU					ontaqo	100×	100×	100×	100×	100×		100×	100×	100×	60×	100%	100×	100×	100%	100×	100×		100×	70×		
		AMN76611/13	001.00299		prog. 2-out		lan	6-10	6-15	7-9	7-19	8-7		8-11	8-20	8-15	9/10	9/5	974	8-22	9/5	9/7	9/9		9/11	9/15	9/28	9/16
3		B/PLR GLASS RUN BRKT	,		R&L	Ac	_	6-10 1992	6-25 109×	7-10 100%	7-31	8-7 1002		8-11 100x	8-21 109%	8-20 100%	60×	9/4 100×	9/5 100×	\$/25 199%	9/5 109×	9/5 100×	9/11 109.2		9/11 199%	792		
-	Material Type	HD6057605U				Porc		100%	100%	100%	100%	1002		1002	1002	1002	60X	100%	100%	100%	100%	100%	1002		100%	702		
4	Part Hame Haterial					Perce							-									_		E				
5	Part # Part Hame						lan fual																					
-	Haterial Part \$					P	entage Ian											_										
6	Part Hame Haterial						dual entage																	E				
7	Part # Part Hame					P	lan fual							1														
	Part \$						entage						1															
8	Part Hame					Ao	dual entage																					
9	Part # Part Hame					P																						
	Part \$						entage						1												_			
10	Part Name					Ao	dual entage											-										
11	Part #					P	lan																					
	Part Hame					Perce	tual entage						1															
12	Part # Part Hame Fisterial						dual																					
	Part 8					p	entage Ian																					
13	Partitione					Perce	dual entage						1											_				
14	Part # Part Hame						dual																					
	Part 8					P	entage Ian																					
15	Part Hame						dual entage							_							-			E				
16	Part # Part Hame					P	lan fual						-											_				
	Part \$					Perce	entage Ian						1															
17	Part Hame					Ao	fual entage						1															
18	Part # Part Name					P							-															
18	Part Name material						entage				_		1															



EXAMPLE – WEEKLY PICTURE REPORT



We are machining hard trim steel now and will be finish it on 25^{th} , we will then run the customer sample on 28^{th} .



EXAMPLE – WEEKLY PICTURE REPORT



We are improving the part quality and will be run the sample on 25^{th} .



Contact Information

International Tool & Engineering

Brian Allen Director of Business Development (586) 707-2660 Ballen@internationalte.com

OUR CUSTOMERS SUCCESS IS OUR SUCCESS