





No single component of the extrusion production process should be examined or evaluated individually.

Each interacts with at least one other complementary element of the process. If the interacting elements are equally efficient, they will reinforce and enhance the function of each other.

Only if the entire production process is considered as an integrated system, with all parts operating together in common cause, can maximum efficiency be approached.

All Castool products promote energy conservation and are environmentally friendly.

SAFE • RELIABLE • LONG-LIFE • EFFICIENT • ECONOMICAL







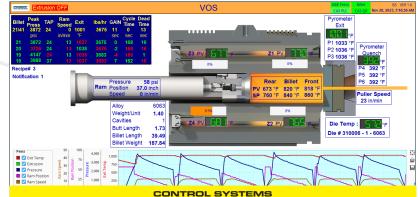
BETTER PROFILES FASTER

CERTIFICATE OF REGISTRATION

Castool Tooling Systems

ISO 45001:2018

SYSTEMS AND SERVICE









See: Subject to any disclaims. The percent is emoded or sellor U.S.C. (Helb) by O days.



MATERIALS

ALLOY	Working hardness (HRC)	Hot strength	Toughness	Hot wear resistance	Thermal Conductivity (W/mk)	Cost
Con-Duct	34-38	•	•••••	•	••••	0
L6 (1.2714)	38-42	•1	•••	•1	•••	0
H-11(1.2343)	38-52	••	••1	••	••	•
H-13(1.2344)	38-52	••1	••1	••1	••	•
E40K	42-52	•••	•••1	•••	••1	•
Tuff Temper	42-52	•••1	••	••••	••1	••
Q10	42-52	•••	•••	•••	••1	••
DAC3	42-52	•••	•••	•••	••1	••

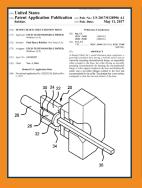
Extrusion processes can vary widely. Alloy types, pressures, cycle times, size and lubrication can all play a role. Choosing the best material for each component of

The chart lists the thermal conductivity, wear properties, temperature range and cost factor for several of the materials Castool uses.

MANY OF CASTOOL PRODUCTS AND PROCESSES ARE PATENTED.







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(54)	EXTRES MANTLE	ION PRESS CONTAINER AND FOR SAME, AND METHOD	(96)	References Clini	
(71)	Applicant	Exce Technologies Limited, Matham (CX)		U.S. PATENT DOCUM 5 A * 1592 Maller 5 A * 1598 Manual	BOIC 2940
(72)	broater	Paul Henry Robbins, Port Pury (CA)	4,602,10	S.A. * 151700 Debrook	9 BOSC (1962)
(73)		Exen Tockwelogier Limited, Ontario (CA)		9 82 * 92009 Rabbas. 3 A1 * 62014 Rabbas.	B21C2346
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(21)	Appl. No.:	14903,890	10	ORDER PURCUCAN	
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		ated U.S. Application Data	(57)	ARCTRACT	
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90	Applicant	Paul Henry Robbins, Part Perry (CA)	4,814,949 St 40001 Sept 1,91,91 St 10003 Sept	
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(0)	Asignee	EXCO TECHNOLOGIES LIMITED, Makham (CA)	2013/0187303 AJ * 70013 Bullet	89C 690 3479
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tto	Appl. No.	13932,894		
	Hint	Jan. 30, 363	OTHER PUBLIC	
	Plead		Plac M. et al, "New Adapt Strapperswerktrages", Understand	Zer Erwarmong Von
15)		Prior Publication Data	DE, vol. 34, No. 1, Mar. 1, 2001, p. 2 0300-2107, p. 2	0.25,39005-com; box.
	US 2010	0027941 A1 Jun. 30, 2014		
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		hted U.S. Application Data	Primary Examiner Robot J Go Clift Assency, Agent, or Firm 2	Frang Basile Hanlow-B
•	21, 2012.	al application No. 61/962,677, filed on Jun.	McFirlaw, P.C.	
			(7) ABSTRAC A method of pro-housing an extrasi	
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United States	CS ACCURACYCLAS		
	on (10) Pub. No.: US 2014/0027941 A1 (40) Pub. Date: Jan. 30, 2014		
EXTREMOS DE PRE-REATING DEVICE AND METHOD	Publication Classification		
Andrew Ped Boar Babbin Det Providition	(71) Bos.Ch. (2005.01)		
	(2) E.S.C.		
Irradoc Ped Brany Robbins, Port Purp (CA)	CPC		
Anipor: EXCO TECEPOLOGIES LIMITED. Makhan (CA)	(f) ABSTRACT		
Appl. No.: 13822,894	A method of pro-horting as extension-dis exceptions horting an extension dis using a first group of horting elements and a second group of horting elements, and then horting the extra-		
Tiled: Ass., 34, 343	sion de ming only the lest group of beating elements to bring the determine die to a desired one hast presentates, or heating		
Related U.S. Application Data	the extractor do using the first and natural groups of hosting elements, the second group of hosting elements being open-		
Provisional application No. 61/662,677, filed on Inn. 21, 2012.	and at reduced power, to being the extravies die to a desired too-best temperature.		
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DIE HEATERS

SHEAR BLADES/ LUBRICATION

ALU-JECT

Sodium Based

Release Agent

CONTAINERS/RELINES

TOOLING





Alloy and Profile Specific



KNIFE



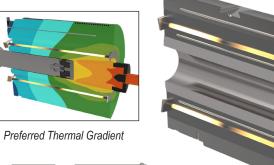




TOOL RELEASE

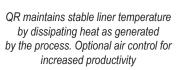
Boron Nitirde

Protection





3-PIECE FOR ADDED STRENGTH







DUMMY BLOCKS

H-13 (1.2344) and Tuff Temper

- Proven designs
- Efficient operation
- Reliable



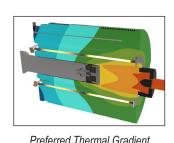
Replaceable Ring Block (for pressures

less than 100 ksi)



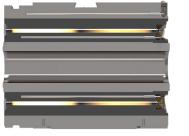


STEMS/ **SPACERS**



QR (Quick Response)

CONTAINER













TRIPLE CELL TRC40/50/60

2 - SIDE HEATING

SINGLE CELL





DELTA





90 DEGREE







Die Management Software, Visual Optimization System, Remote Optical Pyrometers









APPROVED

PRESS TOOLING: Die Rings, Bolsters, Pressure Rings, Billet Shears, Die Slides, Horseshoes, Tie Rods, Tool Rams, Tool Containers, Heated Ram Noses, Piercing Mandrels, Scalper Blades...