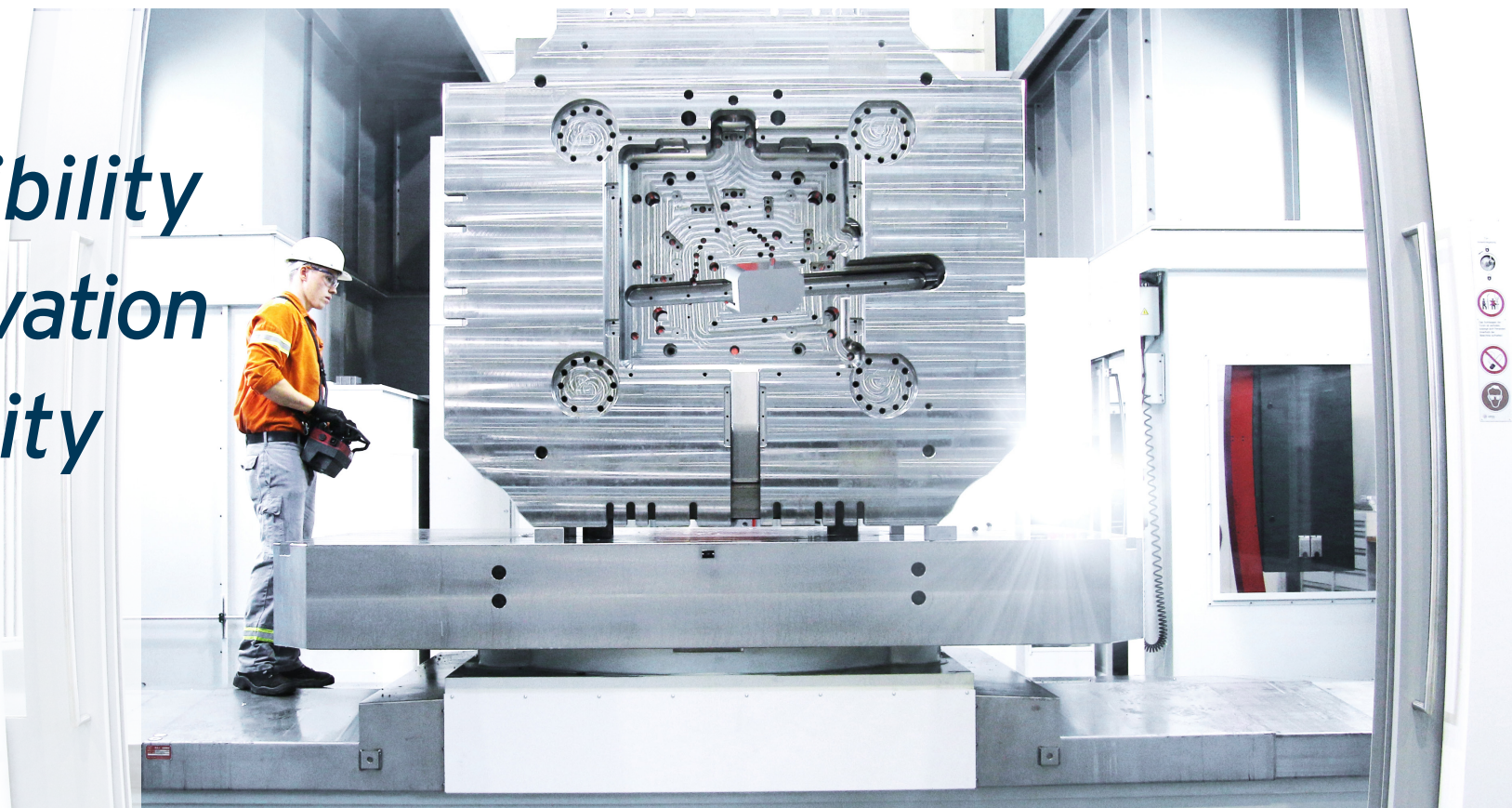




*Flexibility  
Innovation  
Quality*



**Advanced Tooling Tek (Shanghai) Co. Ltd.** ATT, established in July 2001, has been steadfast in delivering high-quality tool steel from Buderus Edelstahl and reputable mills. Specializing in plastic mold steel, die steel, hot work steel, and cold mold steel, ATT serves diverse industries including automotive, IT, electrical appliances, and electronics. Our robust infrastructure includes multiple sawing machines, milling machines, CNC machines, and furnaces to meet customers' demand.

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	Grade		AISI	Delivered condition	Chemical Composition %								Austenitizing Temp°C	Range of hardness	Characteristics	Applications
	ATT	Buderus			C	Si	Cr	Mn	Ni	V	Mo	Others				
Pre-hardened Plastic Mold Steel	ATT 2311	2311 ISO-BM	P20	280-325 HB	0.38	0.30	2.00	1.50	-	-	0.20	P 0.020 S 0.003	Pre-hardened	Uniform hardness with good machining performance, and easy to polish. Suitable for hard chromium plating, nitriding and other surface treatment for mold thickness 400mm and below.	Widely used for small and medium-sized injection mold and mold frames in automotive and home appliance industry. Suitable for use in ABS,PP,PS,PE and other plastics. Long term production can help to maintain good dimensionality and stability.	
	ATT 2711	2711 ISO-B	6F2 mod	355-415 HB	0.52	0.20	0.75	0.70	1.75	0.10	0.30	P 0.020 S 0.002	Pre-hardened	High toughness and high compressive strength; good polishing performance, good texturability, may be nitrided, electroplated and may undergo surface hardening treatment.	For use in large scale compression molds and injection molds etc., that need to withstand higher mechanical stress and heating. Suitable for use in ABS + PC, PS, PP, PE and other plastic molds, such as automotive plating accessories, car grille, printer shell and etc.	
	ATT 2711 MOD	2711 ISO-B MOD	L6 mod	370 - 415 HB	0.52	0.20	1.05	0.95	2.00	0.12	0.75	P 0.015 S 0.001	Pre-hardened	Good toughness, good strength at elevated temperatures and high compressive strength. Nitridable and hard-chrome plateable. Flame-hardenable. Good polishability and suitable for photo-etching.	Large compression and injection molds subjected to high mechanical or thermal stresses. At higher working hardness, also suitable for processing SMC and GMT, in combination with surface coating if possible. Suitable for use in ABS + PC, PS, PP, PE and other plastic molds, such as automotive plating accessories, car grille, printer shell and etc.	
	ATT 2714 MOD	2714 ISO-B MOD	L6 mod	370-415 HB	0.52	0.25	1.10	0.95	2.00	0.10	0.75	P 0.015 S 0.005	Pre-hardened	NiCrMoV alloy die steel with high hardness and high wear resistance, good high temperature strength properties, good polishing and may be surface treated.	Can also be used for large aluminum alloy extrusion die besides injection molds that require high quality, mass production of forging die and mold base, hydraulic forming die (IHU), puncher, forging hammer and extrusion machine parts, etc.	
	ATT 2738	2738 ISO-BM	P20 + Ni	280-325 HB	0.36	0.30	2.00	0.50	1.00	-	0.20	P 0.020 S 0.003	Pre-hardened	Overall performance is better than ATT 2311 and suitable for use in large size plastic molds. ATT 2738 MOD TS is recommended for thickness more than 700mm. Can carry out surface treatments such as nitriding, electroplating and surface hardening to improve mold's product life.	Widely used in large plastic molds such as automobile bumper, dashboard, door panels, seats, as well as large trash bins, refrigerators, TV cabinets, and other injection molds for hom appliances. Suitable for use in ABS, PP, PS, PE and other plastics.	
	ATT 2738 HH			310-355 HB												
	ATT 2738 MOD TS	THRUHARD SUPREME	P20 mod	280-325 HB	0.26	0.10	1.25	1.45	1.05	0.10	0.50	P 0.015 S 0.002	Pre-hardened	Better hardenability and a more uniform distribution in hardness, good polishing, machinability, weldability and thermal conductivity. Reliable etching processing, may be nitrided, electroplated, may undergo surface hardening and other surface treatment to improve mold's product life.	Widely used in large plastic molds such as automobile bumper, dashboard, door panels, grille, seats, as well as large trash bins, refrigerators and TV cabinets, copiers and other injection mold production. Suitable for use in ABS, PP, PS, PE and other plastics.	
	ATT 2738 MOD TS HH	THRUHARD SUPREME (HH)	P20 mod	310-355 HB												
ATT DIAMOND	THRUHARD DIAMOND HHH	-	360 - 405 HB	0.28	0.10	1.25	1.45	1.05	0.15	0.70	P 0.015 S 0.002	Pre-hardened	More uniform and finer microstructure, thus extremely high purity. Mirror-finish polishable using up to 3 um diamond paste. Laser hardenable or nitridable as supplied. This steel generally has a high basic hardness, it gives improved wear resistance and better supporting effects for surface coatings like hard chrome plating or PVD coating.	Injection moulding and compression dies with the most demanding surface finish requirements for producing items such as transparent headlight components, automotive trim and radiator grille panels. Ideally suited for interior use both for polished surfaces and for extra fine-grained surfaces.		
Stainless Plastic Mold Steel	ATT 2316 MOD	2316 ISO-B MOD	420 mod	265-310 HB	0.28	0.30	14.2	0.95	0.50	-	1.10	P 0.030 S 0.003	Pre-hardened	Improved corrosion-resistant plastic mold steel, good polishing, texturable and easy cutting.	For use in injection molds, mold inserts, blow molds, extrusion dies and so on. Suitable for plastics such as PVC, PC, PA, PMMA, POM, etc. Commonly used in medical and food packaging industry.	
	ATT 2085 MOD	2085	420 mod + S	280-325 HB	0.34	0.30	15.0	0.95	-	-	-	P 0.025 S 0.100	Pre-hardened	High hardness, corrosion-resistant plastic mold steel. Contains sulfur (S) elements and has excellent machinability as compared to the ATT 2316 MOD.	For use in corrosion-resistant injection molds; suitable molds and mold parts; commonly used in medical and food packaging industry; not applicable for molds that require finishing in outer appearance.	
	ATT 2099 MOD		420 F	280-320 HB	0.05	0.40	12.3	2.50				P 0.030 S 0.100	Pre-hardened	Better machinability and dimensional stability than ATT 2085 MOD; better corrosion resistance in wet environments and when processing chlorinated plastics under normal production conditions.	ATT 2099 MOD is designed for hot runners, mold holders, refrigeration plates, thermoplastics injection molds with low demands in polishing.	
	ATT 2083		420	Annealed to max.200 HB	0.40	0.80	13.5	max. 1.00	-	0.25	-	-	1020-1040	48-52 HRC	Better polishing and corrosion resistance.	For use in long-term production of plastic molds requiring PA, POM, additive fire retardant and additive GF (below 30%).
	ATT 2083 ESR		420 ESR	Annealed to max.200 HB	0.40	0.80	13.5	max. 1.00	-	0.25	-	-	1020-1040	48-52 HRC	Electro Slag Remelted of high wear resistant, high mirror polishing, corrosion-resistant plastic mold steel.	Suitable for long production of corrosive plastics like POM and PA with flame retardant. Also applicable for small and medium-size plastic molds handling PC and PMMA requiring high surface finish.
Quenching Steel	ATT 2343 MOD	2343 ISO-B MOD	H11 mod	Annealed to max. 229 HB	0.35	0.30	5.00	0.40	-	0.50	1.35	P ≤0.010 S ≤0.003	990-1010	44-52 HRC	Improved hot work die steels. Finer structure, higher toughness and thermal fatigue resistance as compared to the traditional ATT 2343.	For use in plastic molds that require long product life cycle, die-casting molds and inserts that require high life expectancy, extrusion die parts such as die base, core, bushings and liners.
	ATT 2344	2344 ISO-B	H13	Annealed to max.229 HB	0.40	1.05	5.20	0.40	-	1.00	1.40	P 0.025 S 0.003	1000-1040	44-52 HRC	Excellent temper resistance, high toughness, high wear resistance, high compressive strength and good thermal fatigue resistance.	For use in plastic molds that require high strength, aluminum (zinc) alloy die casting molds and extrusion die and parts.
	ATT 2343 ESR		H11 ESR	Annealed to max.230 HB	0.38	1.00	5.00	-	-	0.45	1.30	-	1000-1020	44-52 HRC	Electro Slag Remelted Grade, good mirror finishing and fine grain etching, high toughness and good thermal fatigue resistance.	For use in automotive high light plastic molds such as car lights, interior plating parts, as well as aluminum (zinc) alloy die-casting mold and extrusion die.
	ATT 2344 ESR		H13 ESR	Annealed to max.235 HB	0.40	0.95	5.20	0.35	-	0.90	1.50	-	1000-1040	44-52 HRC	Electro Slag Remelted Grade, good mirror finishing and fine grain etching, high toughness and good thermal fatigue resistance.	For use in plastic molds that require high polishing, high etching and high wear resistance such as car lights, interior plating parts, rear mirrors etc. as well as aluminum (zinc) alloy die-casting molds and extrusion die.
	ATT 2767	2767 ISO-B	6F7	Annealed to max.285 HB	0.45	0.25	1.30	0.30	4.00	-	0.25	P 0.025 S 0.003	840-870	46-54 HRC	Low-distortion, air through-hardening nickel-alloy tool steel with very good toughness, polishable and texturing-reliable.	Suitable for use in compression mold, injection mold such as automobile rear baffle, mudguard mold, as well as for making mold inserts that require high wear resistance, etc. Also suitable for blanking dies for very thick material (up to 12 mm sheet thickness) and shearing blades, etc.
	ATT 2367 PLUS		H13 mod	Annealed to max. 250 HB	0.50	0.25	3.80	0.30	-	0.55	3.10	-	1030-1050	54-58 HRC	Improved high-quality hot work steel specially designed to have higher hardness and high temperature wear resistance than conventional 2344 and 2367 hot work steels, excellent toughness and heat fatigue resistance.	For forging, hot forging dies and punches, complex shape die-casting of dies and inserts, hot-shear dies, long-life required in plastic molds (consisting of GF > 30%) or compression molding dies, and also for high toughness requirements in cold work applications.
	ATT 2379		D2	Annealed to max. 255 HB	1.50	0.30	12.0	0.30	-	0.90	0.95	-	980-1080	56-62 HRC	Cold die with high wear resistance, high toughness and minimal deofformation.	For use in cold extrusion, punching and cutting die production. Suitable for use in plastic die that requires high strength and high wear resistance die inserts.

The information contained herein is intended to provide general knowledge on our products and their uses. It should not be construed as a warranty of specific properties of the products described, or a warranty for fitness for a particular purpose. Each user of products from Advanced Tooling Tek (Shanghai) Co., Ltd. ("ATT") is responsible for making its own determination as to the suitability of ATT's products and services.