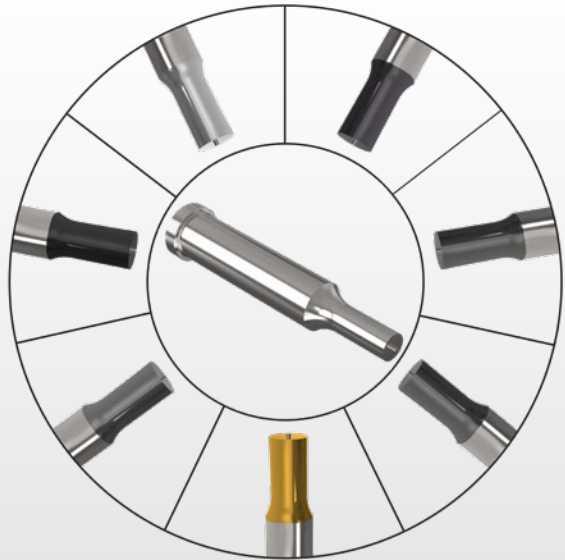




COATINGS - EXTEND THE LIFETIME OF YOUR PUNCHING PROCESS!



High quality coatings and
short delivery time combined!



Refine your punching process!

Regardless of the end product(s) your company manufactures, you can improve the length of run time, reduce changeover time and improve uptime by selecting the type of coating that matches your individual operational capabilities.

In co-operation with our partner Oerlikon Balzers we offer you the whole range of BALINIT coatings. We find the appropriate coating for every punching application. Just tell us your requirements - we will be happy to support you!

DAYTON coated punches are heat treated, precision ground and made with high performance steel, including, but not limited to, the following:

Steel	AISI	Afnor	JIS	DIN	C	Mn	Si	Cr	W	Mo	V	Equivalent
D2	D2	X155 Cr Mo V12	SKD 11	1.2379	1.5	0.3	0.3	12		0.75	0.9	
M2	M2	X85WMoCrV6-5-4-2	SKH 51	1.3343	0.85	0.28	0.3	4.15	6.15	5	1.85	
CPM M4 (PS4)	M4	*	SKH 54	*	1.42	0.3	0.25	4	5.5	5.25	4	ASP2004
CPM 10V (PS)	A11	*	*	*	2.45	0.5	0.9	5.25		1.3	9.75	ASP2053
ASP23	M3:2		SKH 53	1.3344/ 1.3395	1.28			4.2	6.4	5	3.1	
V4E	*	*	*		1.4	0.4	0.4	4.7		3.5	3.7	ASP2005

Our basic offer is built around these 6 steels, but we are also able to offer to you the grade of steel (or close equivalent) you want, as well as carbide.

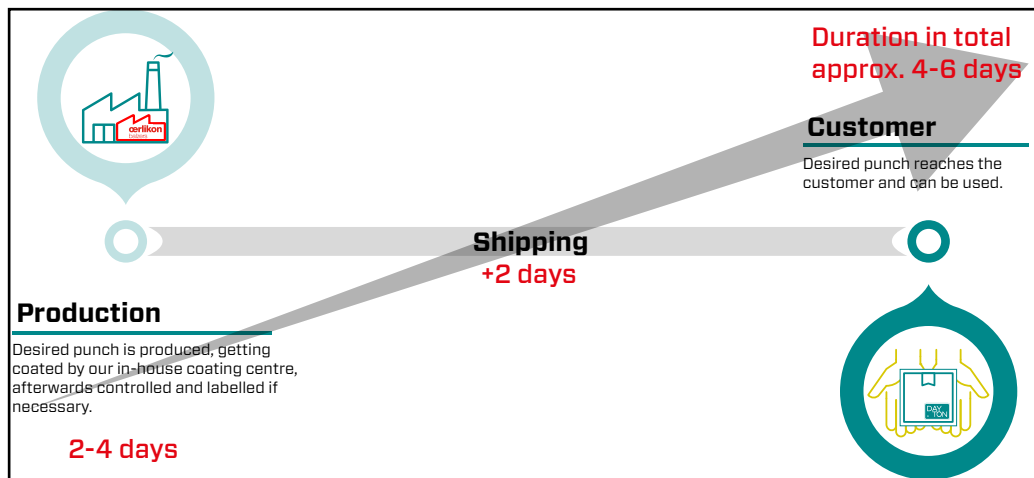


DAYTON PROGRESS and Oerlikon Balzers are committed to reduce carbon emissions by bringing the coating process on site, reducing the number of shipments required and limiting our burden on the environment.

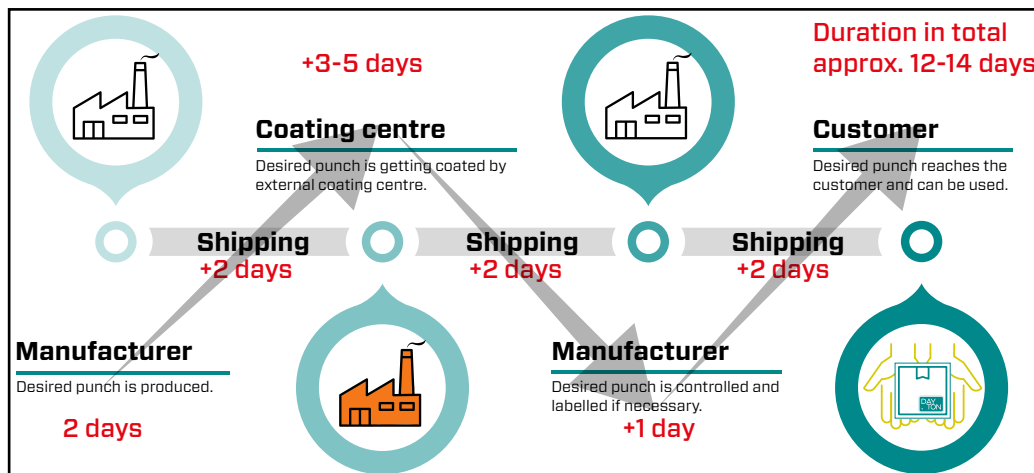


Coating process: Conventional vs. DAYTON

Coating process at DAYTON*



Conventional coating process*



*Shipping estimate is based on a standard AJX punch with TiCN coating.
Duration estimate is based on the average lead time for coatings.
For detailed information see page 4.



Coating (DAYTON Code)	Coating material	Micro hardness (HV 0.05)	Friction coefficient	Coating thickness (µm)	Max. application temperature (°C)	Coating structure	Properties	Working days
BALINIT® A (XNT)	TiN	2300	0,4	3±1	600	Monolayer	Versatile Standard coating	4
BALINIT® B (XCN)	TiCN	3000	0,3	3±1	400	Multilayer	Good toughness	3
BALINIT® C DLC (XNC)	a-C:H:ME WC/C	1500	0,1-0,2	3±1	300	Laminar	Very good sliding properties	7
BALINIT® D (CRN)	CrN	1750	0,5	3±1	700	Monolayer	Carried out at a temperature of about 450°	10
BALINIT® CROVEGA (XND)	CrN	1750	0,5	3±1	700	Monolayer	Carried out at a temperature less than 250°	10
BALINIT® FUTURA NANO (XAN)	TiAlN	3300	0,30-0,35	3±1	900	Nano structured	High hot hardness	7
BALINIT® LUMENA	TiAlN	3400	0,30-0,35	8±2	900	Nano structured	High hot hardness	5
BALINIT® FORMERA (XFM)	Base CrAlN	3000	0,35	8±2	900	Nano structured	Designed for High Strength Steel Applications	10
BALINIT® ALCRONA PRO (XNA/XNAP)	AlCrN	3200	0,35	4±2	1100	Monolayer	Very high oxydation resistance	XNA: 7 XNAP: 10
BALINIT® TRITON STAR DLC+ (XCD)	CrN + a-C:H	2500	0,1-0,2	4±1	350	Multilayer	Very good anti adhesion + toughness	5
BALINIT® HARDLUBE (XANL)	TiAlN + WC/C	3000	0,15-0,20	6±1	800	Multilayer - Laminar	Temperature resistance with sliding and lubrication properties	10



Recommended Applications

Recommended Applications	Forming		Trimming	
	Drawing/Punching	Forming Hot/Cold	Piercing/Trimming	Fine Blanking
Steel not alloy	XAN / LUMENA	LUMENA + Nitriding / XNA + Nitriding	XAN / XNA	XCN / XNA
Steel < 250 Mpa	LUMENA + Flash Nitride™		XCN / XNA	XCN / XNA
Steel < 400 Mpa	LUMENA + Flash Nitride™ / FORMERA		XAN / XNA + Flash Nitride™	XCN / XNA
Steel > 400 Mpa	FORMERA		XAN / XNA + Flash Nitride™	XCN / XNA
Aluminium	XNA + TRITON STAR / XANL	XNA + Nitriding	XCD / XANL	XANL
Stainless steel	FORMERA / XNA	FORMERA / XNA + Nitriding	XCN / XNA	XCN / XNA
Titanium	LUMENA	LUMENA + Nitriding	XAN	XAN
Bronze brass	XAN / XNA	XNA + Nitriding	XCN / XNA	XCN / XNA
Copper	XND / TRITON STAR / XCD	XNA + Nitriding	XCN / XNA	XCN / XNA

For additional information or help in selecting the right coating for your operation, contact your nearest DAYTON representative.

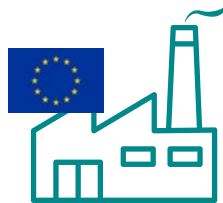


This is

Many years
of experience



Production in
Europe



Technical
support



High quality
standards

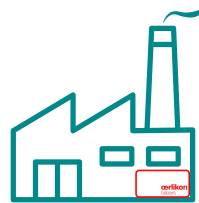


DAYTON!

Fast offers



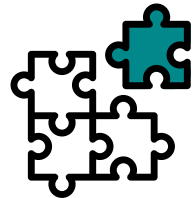
Coating center



We translate product codes and norms



Individual solutions





DAYTON PROGRESS

The only supplier of in-house coatings in the area of punch and die in Europe

The benefits to you of our coating centre in the factory:

- Faster lead time
- On-site specialists
- Co-operation with Oerlikon Balzers to your advantage
- Smooth-running processes



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