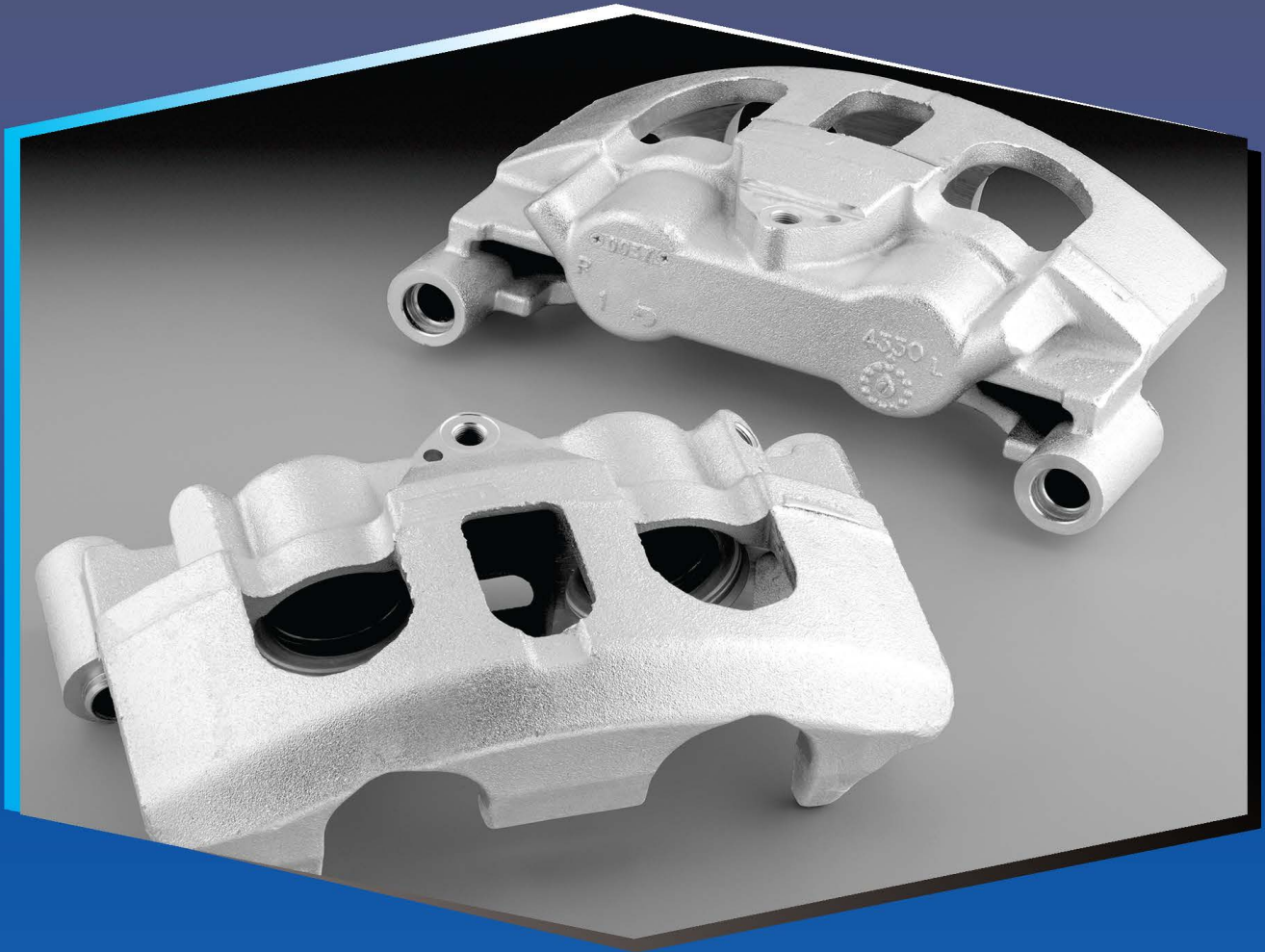


COLLOY A-Z-N 300

Acid Chloride Zinc-Nickel Plating Process



- ◆ **Second Generation Process - High efficiency, Better throwing power, Improved ductility, Superior levelling, Mirror bright, Uniform alloy distribution.**
- ◆ **12-15% Nickel alloy thru the Low-High current density range. Readily accepts Trivalent Blue, Yellow and Black chromates.**
- ◆ **Readily plates substrates such as malleable iron castings, heat treated and hardened steels.**
- ◆ **User Friendly Process - Four additive system. Free from Boric acid and Ammonium Salts. Operates at temperatures between 32 - 37°C. Works with single rectifier.**



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In association with

COLUMBIA®



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Simplifying Surface Finishing®

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FEATURES AND BENEFITS

CONSOL - COLLOY A-Z-N 300

PROCESS FOR ZINC/NICKEL ALLOY PLATING FROM AN AMMONIUM AND BORIC ACID FREE PLATING BATH

Brought to India in association with Columbia Chemical Corpn., - U.S.A., World Leaders in Zinc Plating Technologies.

- Provides a levelled, mirror bright, ductile electro-deposited Zinc-Nickel alloy containing from 12% to 15% Nickel that is evenly distributed at low, mid and high current densities.
- Operates at lower, more economical temperatures between 32 - 37°C.
- Deposits accept Trivalent Blue, Yellow and Black as well as other Hexavalent chromates.
- Can readily plate substrates such as malleable iron castings, heat treated and other hardened steels.
- Is free from Boric acid and Ammonium salts and does not require separate rectifiers.
- User friendly four additive system: Buffer, Complexer, Wetter, Brightener.
- Second generation product that offers improved ductility, better throwing power, enhanced brightness across current densities, more uniform alloy, > 95% efficiency, less dissolution of zinc anodes during downtime.

OPERATING PARAMETERS

RACK PLATING AND BARREL PLATING - YIELDS 12-15 % NICKEL

	RANGE	OPTIMUM
Zinc Metal:	15 ~ 30 g/l	25 g/l
Nickel Metal:	15 ~ 30 g/l	20 g/l
Nickel-Zinc Metal Ratio	1.6:1 to 0.6:1	1.25:1
Total Chloride:	125 ~ 175 g/l	146 g/l
CONSOL - Colloy A-Z-N BUFFER 310	27 ~ 45 g/l	36 g/l
CONSOL - Colloy A-Z-N COMPLEXER 320	5 ~ 15 ml/lit	10 ml/lit
CONSOL - Colloy A-Z-N WETTER 330	2 ~ 7.5 ml/lit	3.75 ml/lit
CONSOL - Colloy A-Z-N BRIGHTENER 340	0.75 ~ 2.0 ml/lit	1.0 ml/lit
pH	5.0 ~ 5.6	5.3
Operating Temperature:	32° ~ 37° C	35° C

SOLUTION MAKE-UP (100 Liter)

CONSOL A-Z-N 300 ZN ADDITIVE A	10 lit
CONSOL - Colloy A-Z-N 300 Ni SALT	8.1 kg
CONSOL - Colloy A-Z-N 300 B SALT	20.0 kg
CONSOL - Colloy A-Z-N BUFFER 310	3.6 kg
CONSOL - Colloy A-Z-N COMPLEXER 320	1 lit
CONSOL - Colloy A-Z-N WETTER 330	375 ml
CONSOL - Colloy A-Z-N BRIGHTENER 340	100 ml
Make Up of the bath as written above will yield an optimum operating analysis of:	
Zinc Metal	25 g/l
Nickel Metal	20 g/l
Total Chloride	146 g/l
pH (Electrometric)	5.3 (after adjustment with hydrochloric acid)
The following equivalents should be noted when maintaining the chloride, zinc and nickel content of the bath:	
CONSOL A-Z-N 300 B SALT	Contains 48% chloride
CONSOL A-Z-N 300 ZN ADDITIVE A	Contains 25% Zn Metal, 25% Chloride (W/V)
CONSOL A-Z-N 300 Ni SALT	Contains 30% Chloride, 24% Nickel metal

Attention: This sheet is only meant to provide Features and Benefits of the process mentioned. For detailed Usage, Please refer the product Technical Data Sheet. For Safety, handling and Chemical information please refer the Safety Data Sheet. These can be provided through a *Consolidated Metal Finishing Pvt. Ltd.* representatives or requesting us for the same by email.