



Residue-free cleaning prior to PVD coating

Advanced cleaning solutions with deconex®

For high yield rates and a perfect bonding an absolutely residue-free cleaning of substrate prior to PVD coating is necessary. The deconex® cleaning processes are used successfully at leading manufacturers worldwide. deconex® products are suitable for typical substrates made of steel, carbide and aluminium.

Longterm experience with cleaning processes prior to PVD coating

Advantages

- high cleaning power
- long bath lifetimes
- good rinsability
- good wetting
- special corrosion inhibitors
- corrosion inhibitor does not affect the PVD coating
- no cobalt leaching

Applicable for contaminations like

- processing oils
- coolant emulsions
- corrosion inhibitor oils
- dewatering residues
- metal residues from the grinding process
- abrasive materials
- salts

We recommend the following products for cleaning prior to PVD coating:

For ultrasonic cleaning systems	
<p>deconex® HT 1170 – mildly alkaline detergent with high surfactant content and hence high degreasing power</p> <ul style="list-style-type: none"> – high cleaning power at low dosage concentrations (1-3%) – excellent wetting of parts – long bath lifetimes – no saponification with oils and emulsions – very good rinsing properties – no cobalt leaching (due to the use of specific corrosion inhibitors) 	<p>deconex® HT 1401 – highly alkaline detergent, contains surfactants and additional</p> <ul style="list-style-type: none"> – special corrosion inhibitors – high cleaning and degreasing power – low dosage concentrations (2-3%) – no cobalt leaching (due to the use of specific corrosion inhibitors)
<p>deconex® HT 1232 – mildly acidic detergent containing surfactants and special corrosion inhibitors for the removal of heat discoloration and corrosion from HSS steel and carbides</p> <ul style="list-style-type: none"> – deoxidizing and supports cleaning – optimum wetting of parts for uniform deoxidation – no cobalt leaching (due to the use of specific corrosion inhibitors) – temporary corrosion inhibition (for intermediate rinsing) 	<p>deconex® HT 1233 – mildly alkaline detergent with surfactants and corrosion inhibitor with hydrophobic effect for gentle cleaning and as corrosion protection during final rinsing</p> <ul style="list-style-type: none"> – good wetting of the surfaces of parts – excellent rinsability of the surfactants alkalis used – effective corrosion inhibition in the rinsing steps – no effect on the following PVD coating process through the corrosion inhibitor – no cobalt leaching
For spray cleaning systems	
<p>deconex® HT 1153 – mildly alkaline detergent with high degreasing power</p> <ul style="list-style-type: none"> – foam-free above 40 °C – no cobalt leaching – excellent rinsability incl. corrosion inhibiting properties – demulsifying oils and greases (no risk of saponification) – foam-reducing effect (in case of cooling lubricants) 	<p>deconex® HT 1510 – highly alkaline and high concentrated detergent with high degreasing power</p> <ul style="list-style-type: none"> – corrosion inhibiting properties (no cobalt leaching) – high degreasing power in strongly diluted ready-to-use-solution – large reduction of the surface tension (for optimum wetting) – especially for highly contaminated parts
<p>deconex® AntiCorr Plus – salt free, non foaming corrosion inhibitor for steel materials</p> <ul style="list-style-type: none"> – prevent corrosion in final spray rinsing – no spot formation due to salt free formulation – no interference with PVD coating 	