

## Released suppliers

<b>I. Drive components:</b>	<b>Regular supplier</b>	<b>Alternative supplier</b>
1. Couplings / clutches, clutch and brake combinations	ORTLINGHAUS	DESCH, GOIZPER
2. Drive motors	SIEMENS, auch Siemens Licensaggregate	OSWALD, BAUMÜLLER
3. Safety brakes	ORTLINGHAUS	GOIZPER
4. Pumps (axial piston pumps, power controlled)	BOSCH-REXROTH	PARKER
<b>II. Hydraulic- and greasing system</b>	<b>Regular supplier</b>	<b>Alternative supplier</b>
1. Filter and elements	HYDAC	MANN & HUMMEL, BOSCH-REXROTH
2. Lubricant oil distributor	WÖRNER	TRABON, VOGEL
3. Hydraulic aggregates (purchased as a complete sub-assembly)	BOSCH-REXROTH	HYDAC
4. Measuring connections	SYSTEM MINI-MESS	
5. Pipe screw connections (only up to 30 bar)	ERMETO	
6. Hose screw connection (only up to 30 bar)	ERMETO	
7. Pipe screw connections (above 30 bar)	System SAE Flanschverschraubung	VOSS Hydraulikverschraubungen
8. Hose screw connection (above 30 bar)	System SAE Flanschverschraubung	Ringaugenverschraubungen, Dichtkegelnippel, VOSS Hydraulikverschraubungen
9. Pressure vessels	HYDAC	BOSCH-REXROTH
10. Pumps (gear wheel or vane cell pumps)	BOSCH-REXROTH	PARKER, BUCHER
11. Valves	BOSCH-REXROTH	MOOG, PARKER, HAWE, VICKERS
12. Filling valves	BOSCH-REXROTH	HAWE, VICKERS
13. Clamping hydraulics	HILMA-RÖMHELD	LUKAS, OPTIMA, BERG
<b>III. Adjusting and safety components</b>	<b>Regular supplier</b>	<b>Alternative supplier</b>
1. Spring shock absorber combinations (press mounting with vibration damping)	GERB	KTI, BILZ
2. Photoelectric safety barriers	SICK	SIEMENS
3. Safety relevant components	PILZ	SIEMENS, TELEMECHANIQUE
<b>IV. Control, visualization and Operating components for preses <u>without</u> transfer system</b>	<b>Regular supplier</b>	<b>Alternative supplier</b>
1. PLC units	SIEMENS ab S7-300	VIEPA
2. Operation and monitoring and visualization	SIEMENS (WIN CC FLEX), SIEMENS TIA Portal	
<b>V. Control, visualization and Operating components for preses <u>with</u> transfer system</b>	<b>Regular supplier</b>	<b>Alternative supplier</b>
1. Control unit	SIEMENS (SIMOTION)	BECKHOFF
2. Operating and monitoring and visualization	SIEMENS (WIN CC), SIEMENS TIA Portal	
3. Diagnosis and remote maintenance (VPN remote maintenance)	EWON	EUROGARD
<b>VI. Coil remnant feeder</b>	<b>Supplier</b>	
1. coil remnant feeder	ARISA S.A., SCHULER, NEUHÄUSER	
<b>VII. Transfer system and components</b>	<b>Supplier</b>	
1. Transfer systems	ARISA S.A., SCHULER-WEINGARTEN, SANDER, GPA, SAPI, DREHER, STROTHMANN, AP&T	
2. Transfer drives	SIEMENS, INDRAMAT	
3. Sensors	TURK, KEYANCE	
<b>VIII. Coil feed lines</b>	<b>Supplier</b>	
1. Coil feed lines	ARKU MASCHINENBAU, FECKER MASCHINENBAU, CISAM-IMPIANTI, SCHULER-AUTOMATION, LASA	
<b>IX. Blank loaders</b>	<b>Supplier</b>	
1. Blank loaders	NSM-MAGNETTECHNIK, ARISA S.A., SAPI, SCHULER-AUTOMATION, DREHER, STROTHMANN, AP&T	
<b>X. Coil and blanks lubrication systems</b>	<b>Supplier</b>	
1. Coil and blank lubrication systems	RAZIOL, MICROJET, SCHMIDT, ECKHARDT	