

**Motor/Engine:** MAN E 3268 LE212  
**Leistung/Power:** 370 kW @ 1500min<sup>-1</sup>  
**Zyl/Cylinders:** V8  
  
**Venturi:** GM 140/76  
GMA 82  
  
**Gas:** Natural  
**Lambda:** 1,69

Pos.	Qty.	Description	Item	HZN
<b>1</b>		<b>Speed/ Load Control PANDAROS 2040</b>		
	1	Controller PANDAROS	DC 3.6-19	622-00-063-00
	1	Actuator w/ throttle valve	DK-200-100 / StG 3+ HT	454-00-100-60
	1	Actuator Cable	10m	620-81-281-9005
	1	Cable Harness Pickup	10m	620-81-248-6005
	1	Pickup 5/8" - 18 UNF-2A	IA 12-76	600-00-006-02
<b>2.1</b>		<b>GMA AFR Positioner</b>		
	1	Gap gas mixer annular	GMA 82	494-00-002-00
	1	Mounting plate Rp 2" or for Biogas	MP 200	463-19-025-00
	1	Mounting plate Rp 3"	MP 200	464-19-002-00
	1	Cable harness (Input 4-20mA, 0-5V, PWM, Feedback, Ref, Stop, Error) 10 m		490-81-012-00
or				
<b>2.2</b>		<b>GM E-LES SMC Positioner</b>		
		<b>For Natural Gas use:</b>		
	1	Gas mixer Housing	GM 200-0100	464-80-000-00
	1	Venturi Insert Natural Gas*	VE-200-1001-24-S22-5,3	464-83-104-53
	1	Mounting plate Rp 2"	MP 200	463-19-025-00
	1	Electronically controlled MAS E-LES 50.3 SMC		472-00-021-00
	1	Cable harness (Input 4-20mA, 0-5V, PWM, Feedback, Ref, Stop, Error) 10 m		490-81-012-00
		<b>For Biogas use:</b>		
	1	Gas mixer Housing	GM 200-0100	464-80-000-00
	1	Venturi Insert Biogas* 50%CH <sub>4</sub>	VE-200-1001-24-S22-8,2	464-83-104-82
	1	Mounting plate Rp 3"	MP 200	464-19-002-00
	1	Electronically controlled MAS E-LES 80.3 SMC		472-00-022-00
	1	Cable harness (Input 4-20mA, 0-5V, PWM, Feedback, Ref, Stop, Error) 10 m		490-81-012-00
<b>2.3</b>		<b>AFR-Control KRONOS 20 (Optional); only in combination with E-LES SMC</b>		
	1	Controller Closed Loop *)	KRONOS 20-01 CL	620-00-118-01
	1	Combined Pressure/ Temp.sensor *)		600-00-082-00
	1	Adaptor for pressure sensor 600-00-082-00		600-19-083-00
	1	Cable Harness Sensor *)		600-81-051-00
	1	Pick up isolator *)	PUI-01	300-00-175-00
	or			
	1	Pickup 5/8" - 18 UNF-2A *)	IA 12-76	600-00-006-02
	1	Cable Harness Pickup *)	10 m	620-81-047-10
		*) If a MAN datalogger is installed on the engine, MAT, MAP and engine speed can be alternatively read via SAE J1939. Therefore only the KRONOS 20 control unit is required, please order 620-00-118-01 in combination with software <b>Kronos20_ac0082XX_CL_Power_SAEJ1939.dwn</b>		

Pos.	Qty.	Description	Item	HZN
<b>2.4</b>		<b>AFR-Control KRONOS 30 (alternative)</b>		
	1	Control System closed loop for GMCU 30/42	KRONOS 30	620-00-202-00
	1	ELEKTRA 42	GMCU-42-FC	473-00-042-10
	1	Cable harness Elektra 42		473-81-017-00
	1	Combined Pressure/ Temp.sensor		600-00-082-00
	1	Adaptor for pressure sensor 600-00-082-00		600-19-083-00
	1	Cable Harness Sensor		600-81-051-00
	1	<i>Pick up isolator</i> or	<i>PUT-01</i>	<i>300-00-175-00</i>
	1	<i>Pickup 5/8" - 18 UNF-2A</i>	<i>IA 12-76</i>	<i>600-00-006-02</i>
	1	<i>Cable Harness Pickup</i>	<i>10 m</i>	<i>620-81-047-10</i>
	1	Gas mixer Housing	GM 200-0116	464-80-000-01
	1	Venturi Insert *)	VE-200-1161-24-S22-9,1	464-83-114-91
	1	Mounting plate Rp 2" *) for gases between 50% CH4 - 100% CH4 (biogas - natural gas)	MP 140 / MP 200	463-19-025-00
<b>3</b>		<b>Ignition Control PHLOX II 8 Cylinder</b>		
	1	Controller PHLOX	PHLOX II IC-08	680-00-010-00
	1	<i>Cable Harness Input</i> or	<i>without CAN</i>	<i>680-81-002-17</i>
	1	<i>Cable Harness Input</i>	<i>with CAN</i>	<i>680-81-002-18</i>
	1	Pickup camshaft	HIA-M12-76	600-00-140-00
	1	Ignition Rail 8 cyl. with cable harness, mounting set and ignition coils grey; left		Z00-21-052-00
	1	Ignition Rail 8 cyl. with cable harness, mounting set and ignition coils grey; right		Z00-21-053-00
	8	Spark plug connector w/ ring connector for Bosch MR3DII360 M18		Z00-19-052-00
<b>4</b>		<b>Knock control system ARIADNE 8 Cylinder</b>		
	1	Knock controller	KC 01-IP 00	620-00-137-12
	4	Knocksensor *)	KS 4-K1	010-80-097-00
	4	Connecting Cable Knock Sensor *)		600-81-082-00
	1	Pickup camshaft **)	HIA-M12-76	600-00-140-00
	1	Cable for Pickup HIA S3 / M12 **)	10 m	620-81-177-00

\*note: Knock sensors are potentially already installed on the engine by MAN, please check! Sensor cables will fit to originally engine mounted sensors as well.

\*note: Pickup may be shared with the ignition system by using a splitter. Pickup or splitter not necessary in combination with Heinzmann ignition system PHLOX. Knock sensors are typically pre-installed on the engine