

E-Mail

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To: **Jailaxmi Alloys steel pvt. ltd.**
Aurangabad

Attn. **Manish Patel**

E-Mail: Jailaxmi Projects <projects@jailaxmispecialsteel.com>

Tel.:

Date:

10.06.2024

From: Sivasankar Davamani

Pages:

18

Ref.: Revision based on customer visit dated: 29.05.2024

Quotation No: Q06-24-0901/DSS

Dear Mr. Patel

We would like to thank you for the above mentioned inquiry and for the interest in our products. We are pleased to enclose the quotation and literature that you requested.

Kindly note that we are quoting a complete system with alternative executions, options and accessories. We would be happy to prepare a further quotation specifically for your application.

Please do not hesitate to contact us or our representative if you require extra information. Your contact in our main office in Switzerland, Mr. Sivasankar Davamani, Area Sales Manager, will be glad to assist you.

Looking forward to your early news, we remain,

Yours sincerely,

Zumbach Electronic AG
Sivasankar Davamani

78-07160-W

STANDARD SYSTEM

STEELMASTER - Model SMS 160-S4 (or -S6) In-Line Measuring System for Hot Rolling Mills For Round and Non-round Products, Profiles

General Application

- Rod, bar, rebar, pipe
(non-round products maybe possible, but with limitations)
- Max. dimension = approx. 140 mm (5.5 in.)
- Max. temperature = 1200 degrees C (2192 degrees F)
- Speed = unlimited

Your Specific Application

- Product(s):
- Product dimensions:
- Temperature:
- Line speed:

Short Description

State-of-the-art, modular and flexible dimensional measuring systems for hot rolling mills.

Latest laser scanning technology with 1000 fully synchronized measurements/s and up to 6 measuring axes. Mechanically highly developed and long-lived concept with minimum and easy maintenance. Data communication with fibre optics cable and processing/display with highly developed STEELMASTER software. The SMS 160 system is the result of over 30 years development and experience with more than 300 systems.

Latest Technology

- Hi-tech ODAC laser scanner with highest accuracy
- Up to 6000 measurements/s (1000/scanner)
- Distributed Processing
- Fibre optic cable between LPO unit and processor (CPO)
- Industrial PC, operating system on flash disk
- State-of-the-art software:
 - ZUMBACH Real Time
 - ZUMBACH STEELMASTER
 - WINDOWS embedded
- Optional Software: Asymmetrical faults, Database, Remote, SPC etc.
- Unique mechanics, automatic shutter

Outstanding Advantages

- 1. Up to 6 measuring heads in same plane:**
i.e. ovality in same plane is known any time.
- 2. Reliable and immune to mill conditions**
thanks to special laser scanning technology and unique protection system
- 3. Very compact and easy to install**
- 4. High accuracy independent of environment**
- 5. No wear and close-to-zero maintenance**
- 6. Return of investment within a few months**

General Technical System Data

(see also data of singular measuring head)

Measuring head (scanner): ODAC 160
Measuring field: 160 mm (6.3 in.)
Scan rate: 1000/s (for each measuring head)
Resolution/scan: 0.001 mm (.00004 in.)
Repeatability: +/- 0.0005 mm (.00002 in.)
Resolution of display: Selectable: 0.001, 0.01, 0.1 mm
(.00004, .0004, .004 in.)
Measuring error: Max. +/- 0.015 mm (.0006 in.)

Measuring times: Continuous measurement and display
along all axes with 1000 readings/s.
Adjustable screen freshup, every 0.5
till 3 seconds.

*All indicated values correspond to the technical specification
of the instruction manual, they are defined with our certified
samples under cold and static condition.

Environmental conditions

Measuring unit: Average ambient temp. 0-45°C (32-113°F)
Blower: Intake air temp. 0-30°C (32-86°F)

Additional coolers and heaters for water and/or air are listed under
options.

The system comprises:

Qty	Part number	Description	Total CHF
1	SMS.1602.15000	Measuring unit SMS 160-S4 w.shutter RI	96'500.--
1	SAS.0010.80201	Local Process./Operat.Unit LPO 1-S,1SC	18'200.--
1	SSV.001.10010	Cable, signal ME-LPO 90°-K1 10m	1'200.--
1	SAS.0010.00300	Central proc./operat.unit CPO 3-SM 1SC	11'900.--
1	A09 552 0060	Fibre optic cable with connector, 60m	1'270.--
1	SSV.005.09010	Cable/Hose set, GE,<4kW 10m	1'170.--
1	SSZ.009.1520	Calibration set SMX 160-S2/S3	3'380.--
1	D-E47.000.000	Project management / Documentation	6'650.--
1	GE.501.05301	Blower unit GE 5-3, 400/50Hz	7'600.--
1	SW-SM2E-SDB	Software STEELDATABASE (SDB)	8'550.--
1	SW-OPCS1000	Software OPC Server for Windows	750.--
1	SW-SM2E-SCH	Software Interface ETHERNET	6'500.--
1	SW-SM2E-SPC	Software package SPC	5'400.--
1	SM.9900.01300	Spare parts set ODAC 160JPK-S4	5'800.--
1	SSZ.008.5030	Giant display S300-1015R-1-S1-A 3x5di	12'800.--
1	SSV.003.02050	Cable, giant display RS-422 50m	250.--

Total FCA CH-2552 Orpund, unpacked: CHF 187'920.--
Discount 40% (Special price) -CHF 75'168.00
Total FCA CH-2552 Orpund, unpacked: CHF 112'752.00

+
Additional services:
 1 ZU-COMM.08 Commissioning/Instructions-4days 7'500.--
Optional: logistics cost CIP
 1 CIP cost Logistics CIP Mumbai 7'000.--

Note: PC Display monitor + keyboard + mouse -> customer scope
 LPO (local processing unit), CPO Central processing unit, offered version is table top version; suitable mounting racks shall be offered by the customer.

Measuring Unit Versions:

1a) Version with connection panel at the RIGHT side
 (view against the rolling direction)
 This version is included in the basic system.

1b) Same version as in the basic system, but with connection panel at the LEFT side:
 (view against the rolling direction)

1 SMS.1602.15100 Measuring unit SMS 160-S4 w.shutter LE 96'500.--

1c) Versions with 4 or 6 measuring axes:
 (Instead of the 2 axis systems)

1 SMS.1602.16250 Measuring unit SMS 160-S6 w.shutter RI 109'000.--
 1 SMS.1602.16350 Measuring unit SMS 160-S6 w.shutter LE 109'000.--

MULTIGAUGE Systems

This system can any time be extended to system with

multiple measuring units (max. up to 4 gauges). Each additional measuring unit requires 1 of the following items:

1	SMS.1602.15000	Measuring unit SMS 160-S4 w.shutter RI	96'500.--
1	SAS.0010.80201	Local Process./Operat.Unit LPO 1-S,1SC	18'200.--
1	SSV.001.10010	Cable, signal ME-LPO 90°-K1 10m	1'200.--
1	A09 552 0060	Fibre optic cable with connector, 60m	1'270.--
1	A12 401 1080	Gigabit Ethernet adapter	350.--
1	GE.501.05301	Blower unit GE 5-3, 400/50Hz	7'600.--
1	SSV.005.09010	Cable/Hose set, GE,<4kW 10m	1'170.--

Note:

For MULTIGAUGE systems it is possible to use measuring units with different numbers of measuring axis, i.e. that a 2 axis system can be extended with one or multiple measuring units with 3 measuring axis (only SMO), 4- or 6-axis.

It is also possible to combine a static system (SMS) with one or multiple oscillating measuring units (SMO) and vice versa.

Descriptions of the Main System Components

SMS.1602.XXXXX Measuring Unit

The measuring unit comprises basically the laser heads and the protection and cooling housing. The design of housing is very compact and rugged, made of welded, laser-cut steel plates. The system is completely wearless. The measuring heads are equipped with secondary protecting windows. A central ring shutter closes the laser openings automatically when the system is OFF.

The system guarantees reliable function, thanks to an air purging and cooling system. Scale and dust cannot fall onto the measuring heads thanks to the air purging and the ring shutter. The purging/cooling air is supplied by a separate filter/blower unit GE 5 that is part of this quotation.

The unit further comprises:

- Specially coated protection windows
- Central automatic ring shutter, closed when OFF
- Connection panel and cable to L.P.O.
- Easily removable covers for maintenance of the protection windows

Important:

The product guiding through the measuring unit must be provided by the user, in order to guarantee the safety aspects and to keep the product stable enough within the measuring field.

The guides must not be fixed against the unit!

Measuring Heads, model ODAC 160

(built into the above Measuring Unit).

Comprising each 1 emitter and 1 receiver per axis
(2 to 6)

Main specifications:

Measuring field: 160 mm (6.3 in.)
Laser: Laser diode red, class II
Scanrate: 1000/s
Repeatability: ± 0.0005 mm (.00002 in.)
static, cold
Protection class: IP 65
Ambient temperature: Max. 45 °C (113 °F)

SAS.0010.80xxx Local Processing and Operation Unit LPO

This unit is installed at max. 20 m (65 ft.) from the measuring unit. It forwards all pre-filtered measured values and transmits the data via only one fibre optic cable to the main control and processor unit CPO.

It comprises in detail:

- Pre-processing unit for the real time data compression and filtering
- Input for connection cable to the measuring unit
- Input (pluggable) for the fibre optics cable to the processor unit
- Diagnostic outputs for checking the video signals
- Input for pyrometer (option)
- Mains input
- PLC controller
- Built-in cooling unit

Protection class: IP 24
Ambient temperature: Max. 45° C (113° F)
Housing w x h x d: Approx. 760x760x300 mm
(29.9x29.9x11.8 in.)

SAS.0010.00300 Central Control and Operating Unit CPO 3-SM

This is the central unit to use during operation with the measuring unit. The heart of the appliance is an industrial PC of the latest generation.

Technical Data

Design: 19" drawer, height = 4 HU, for mounting in a 19" cabinet or in a table top housing (see corresponding housing under

options).

Computer: Industrial embedded PC.
Operating system on solid state disk.
No need for UPS unit. Protected against power loss.

Inputs/Outputs:

- 1 video output VGA (max. resolution 2014x1536 pixels)
- 1 Ethernet connection to the measuring unit
- 1 Ethernet for customer (TCP/IP)
- 1 Ethernet for I/Os
- 6 USB ports for printer, keyboard/mouse or other peripherals on back side
- 4 USB ports on front side
- 2 PS/2 Port for keyboard/mouse as option
- 2 RS-232 for giant displays provided from IO.130
- 1 relay with changeover contact
- 2 relays with make contact
- 5 digital outputs, isolated (sourcing, sinking or TTL)
- 5 digital inputs, isolated (sourcing or sinking)
- 2 fast digital inputs, isolated for counter inputs
- 2 analogue outputs, isolated

SW-SM2E20..

Software (all licences included) for:

Operating System = WINDOWS 10 IoT embedded
(on solid state memory)

Application Software = ZUMBACH "STEELMASTER"

The standard software comprises all functions for round products.

The software is available in 10 languages; among others: English, French, German, Italian, Norwegian, Portuguese, Spanish, Chinese; others upon request.

The following functions are supported:

- Processing of the readings from the individual measuring heads. All readings are continuously filtered for errors by several sub-routines prior to their release.
- Suppression of both ends of the billet. The length can be programmed.
- Computation of diameter values
- Display of measurements on the screen. The

- display shows simultaneously a graph (cross section) with numerical values
- Selectable: Hot or cold values
- Alarm and pre-alarms of selectable parameters
- When pre-set alarm limits are exceeded, the display will show an alarm condition; output signals are available at digital contacts.
- Configurable statistics
- Shrink factor for hot-to-cold computation can be entered
- Printed quality reports:
 - session report
 - billet report

ZUMBACH CPO 3 is an industrial computer with field proven embedded components, long availability and designed for industrial use.

The Windows 10 IoT operating system used in the ZUMBACH CPO3 computers and the corresponding configuration have been application-tailored to optimize the performance and the reliability of the measurement system.

In order to guarantee maximum reliability, a Windows Embedded write filter protection is used, which blocks permanent writing actions on the disk. All changes to the computer are undone after a restart and added data (files, programs etc.) deleted (except for measurement-related data). ZUMBACH CPO 3 is protected by Windows Firewall and Windows Defender Antivirus against external attacks.

Special software and other languages on request.

Remote access and Support

The system can be accessed over internet for service and support, e.g. for software updates etc.

Standard solution:

Zumbach Electronic uses TeamViewer as a standard remote support tool. TeamViewer is fully licensed for Zumbach Electronic and Zumbach Electronic offers a free non-installation QuickSupport application to customers. The QuickSupport application has to be started manually for every single support session, in order to establish the connection to the customer's infrastructure.

Customized solution:

If the customer does not allow the use of TeamViewer, he can provide his own access tool (e.g. VPN) to Zumbach Electronic. The customer's VPN-access tool must meet the following specifications:

- compatible with Windows 10
- nly route needed traffic through the VPN

(not full-traffic)

- tep-by-step instruction manual in English or German
- wo-Factor authentication (2FA) only to:
2fa@zumbach.ch
- šll required information for setting up the VPN (manual, login etc.) to be provided to:
2fa@zumbach.ch

1	H-0000.1140	Customised Remote Service (Setup)	2'710.--
1	H-0000.1145	Customised Remote Service (Annual Fee)	550.--

A09 552 0060

Cable, fibre optics, 60m

For the connection between the LPO and the processor unit.

Other cable lengths on request.

Max. cable length = 500m.

GE.501.05X01

Blower/Filter Unit GE 5

For generating filtered air for cooling and purging of the measuring unit. Standardised coarse and fine filter cassettes for easy filter change. To be mounted max. 10 m (33 ft.) from measuring unit and to be connected by a flexible hose, diameter 152 mm (6 in.). More than 10 m (33 ft.) possible; conditions to be agreed.

Power = 3 kW, 3x400 V, 50 Hz

Debit = 1350 m3/h.

SSV.005.09010

Cable/Hose set for the blower unit, 10m

Comprises a connection cable for the supply and the hose (diameter = 152 mm) to the measuring unit.

Other lengths on request.

SSZ.009.XXXX

Calibration Set (ISO 9000)

Comprising:

- 1 quick-mount standard holder
- 2 calibration standards with min. resp. max. diameter of application range with ZUMBACH certificate.

D-E47.000.000

Project Management/Documentation

- Definition of complete specifications with your cooperation
- Engineering mechanical and electrical
- Management of complete project

- Complete documentation comprising user manual and technical manual in English language (other languages are optional).

O P T I O N S

Software Options:

1 SW-SM2E-SDB Software STEELDATABASE (SDB) 8'550.--
For Archiving / Viewing.

SDB is a powerful software package for STEELMASTER systems. This software allows all measuring data to be archived over weeks or even months (restricted only by the storage capacity of the hard disk). The structure is based on a MariaDB database. The data to be stored and/or viewed a later time, can be defined through making selections on the configuration screens. The selection criteria can be made according to instrument number, measured parameter, batch number, lot number, user name, piece number, date etc. The information can be displayed in the form of cross-sectional graphics, a strip chart or simply in numerical form.

The software comprises 3 modules:
1. Database
2. Visualization (STEELDBVIEWER)
3. Administration (STEELDBMANAGER)

Note:

The modules 2 and 3 can be installed on a external PC, if desired. The PC should feature from WIN2000 and communicate over an ETHERNET (TCP/IP) connection with the STEELMASTER system. In such cases the responsibility for installation and data handling lies with the customer.

1 SW-SM2E-REM Software STEELMASTER Remote 5'150.--
This is an optional software module that permits to operate up to 10 independent PC's (work stations) over

an ETHERNET TCP/IP network.

On each PC, any screen or task of the STEELMASTER system (incl. STEELDATABASE, if installed) can be viewed respectively executed, independently of each other. The actual measurement and data processing goes on in the background without any interruption.

There are several access levels where the customer can define respective passwords.

Note:

The service level of the system is only accessible at the main STEELMASTER PC connected directly to the measuring unit.

Requirements and limitations for the customer PC's:

1. An ETHERNET LAN network on TCP/IP on the customer site must be available. The responsibility for this network is on the customer side.
2. Up to 10 PC's can be connected and can communicate with the STEELMASTER. Note: The PC must have the following minimal resources: Pentium 3, 600 MHz, 128 MB RAM, 5 MB free space on HD. Operating system WINDOWS. Note: The responsibility for the PC's and the software installation is with the customer.
3. The customer must attribute an IP address to the STEELMASTER PC.

1	SW-SM2E-SPC	Software package SPC Configurable for calculation and visualization, resp. print-out of up to 10 parameters in form of: - SPC charts, X-bar, R - histogram (Bell curve) - factors Cp and CpK	5'400.--
1	SW-SM2E-SCH	Software Interface ETHERNET STEELMASTER HOST protocol for the link to the host.	6'500.--

Bus Gateway solutions - Ethernet TCP/IP conversion to Profinet / Ethernet IP / Allen Bradley PLC:

These range of modules allow the user to convert specified parameters from the ZUMBACH Ethernet TCP/IP host interface of a connected device, to a standard Bus protocol, allowing data capture to a connected bus solution. The data generated is read only and requires the end user in advance to specify their desired system parameters of the Zumbach host device.

Powered by 24 v DC, the solution is a compact DIN rail module that can easily be integrated into existing system solutions or customer systems.

Packaged as a pre-configured device, any ordered module would be set to customer requirements following collaboration discussions between our responsible service technician and the end customer to ascertain the required parameters to be made available to the BUS network.

1	USY.9401.00200	Ethernet TCP/IP - Profinet Gateway	3'900.--
1	USY.9401.00300	Ethernet TCP/IP - Ethernet IP Gateway	3'900.--
1	USY.9401.00400	Ethernet TCP/IP - Allen Bradley G-way	3'900.--

Optional Items

AIR COOLING AND HEATING

Cooling/Chilling Unit for intake air

In case the air temperature at the intake of the blower is above the specified maximum, the air pumped through the conduit can be cooled by a chiller.

Note: In most cases this chiller is not needed, if the blower is installed where the aspirated air is cooler, e.g. in the basement of the mill or outside of the hot steel area.

1	A32 800 0700	Air conditioner LK800D 40/30°	27'500.--
1	A32 800 1100	Air conditioner LK1100D 50/30°	32'200.--
1	A32 800 1380	Air conditioner LK1380D 60/40°	37'400.--

Heating Unit for Blower Air

In case the temperature of the air transported by the blower drops below the specified minimum of 0°C (32°F), a heater can be installed between the blower and the laser gauge.

1	SSZ.003.0210	Heating unit	2'040.--
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WATER COOLING

Heat Protection Device

For product dimensions exceeding 30 mm (1.2 in.) a heat protection shield is required (optional for dimensions smaller than 30 mm/1.2").

This unit operates with cooling water (customer supplied).

1	B.SMO.0010.5010	Protective heat shield ass.	SMO	8'150.--
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Frost Protection for Cooling Water

In case where an occasional freezing of the cooling water may occur, our optional air purging unit must be installed, to automatically eject any water from the pipes of the heat protection device to prevent damage.

1	SSZ.003.0101	Air purging unit		1'420.--
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Fibre optics connection cables (A09 552 0LLL):

Instead of the cable quoted in the basic system.

1	A09 552 0060	Fibre optic cable with connector, 60m		1'270.--
1	A09 552 0075	Fibre optic cable with connector, 75m		1'300.--
1	A09 552 0080	Fibre optic cable with connector, 80m		1'330.--
1	A09 552 0140	Fibre optic cable with connector, 140m		1'500.--
1	A09 552 0190	Fibre optic cable with connector, 190m		1'660.--
		Other cable lengths upon request.		

Display Systems

Office kit for completing the basic system with a display unit:

Comprises: flat screen 19", keyboard, optical mouse

1	SSZ.000.0060	24" LCD desktop screen with keyb/mouse		780.--
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STEELMASTER Data Processing and Display Unit

19" cabinet, height = 1985 mm (42HU).

This unit includes following main components:

- Colour screen 19" LCD-TFT, # A15 605 0177
- Central Processing/Operating unit CPO 3-SM, # SAS.0010.00300
- Keyboard drawer, # A15 605 2250
- Free space for peripherals (printer etc.)

1	SAS.0010.03010	Central proc./oper.unit SAS,CPO 3,42HU		24'900.--
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Industrial screen in heavy duty cabinet with transparent front door and fan.

Height = 480 mm (10 HU).

Max. ambient temperature = 40° C (104° F).

Without keyboard and without mouse.
Requires a connection set "VGA Repeater Cat5",
SSV.005.03LLL (see below for lengths LLL).

1 SSZ.000.0010 Remote CRT, w. cool. unit & glass door 6'650.--

Colour Screen

Conventional screen for office PC in place of
the above industrial screen.

Without keyboard and without mouse.

Requires a connection set "VGA Repeater cat5",

SSV.005.03LLL (see below for lengths LLL).

1 A15 607 0175 Flat colour screen 19" 890.--

Connection sets "VGA Repeater Cat5":

For the connection of the screen to the CPO unit.

1 SSV.005.03050 Connection,VGA Repeat. c5 CRT+K+M 50m 2'950.--

1 SSV.005.03070 Connection,VGA Repeat. c5 CRT+K+M 70m 3'030.--

1 SSV.005.03100 Connection,VGA Repeat. c5 CRT+K+M 100m 3'170.--

1 SSV.005.03150 Connection,VGA Repeat. c5 CRT+K+M 150m 3'360.--

1 SSV.005.03200 Connection,VGA Repeat. c5 CRT+K+M 200m 3'570.--

Accessories as supplement to the above screens:

1 A15 605 1071 Keyboard, USB, English-US 47.--

1 A15 605 9020 Mouse, Optical MouseMan 33.--

Giant Displays and Accessories:

1 SSZ.008.5030 Giant display S300-1015R-1-S1-A 3x5di 12'800.--
Box with 3 groups of 5 digits,
approx. 100 mm (4") high. Each group
allows the display of one selectable
parameter (typically: MIN, MAX,
Average or Ovality or other
parameters).

1 SSZ.008.5020 Giant display S300-1050R-1-S1-A 2x5di 9'000.--
Box with 2 groups of 5 digits,
approx. 100 mm (4") high. Each group
allows the display of one selectable
parameter (typically: MIN, MAX or
Average or Ovality or other
parameters).

Connections between Giant Display and CPO:

RS-422 connection cables for distances from

50 m (164 ft.) and longer.

1	SSV.003.02050	Cable, giant display RS-422	50m	250.--
1	SSV.003.02080	Cable, giant display RS-422	80m	350.--
1	SSV.003.02090	Cable, giant display RS-422	90m	420.--
1	SSV.003.02100	Cable, giant display RS-422	100m	460.--
1	SSV.003.02110	Cable, giant display RS-422	110m	500.--
1	SSV.003.02120	Cable, giant display RS-422	120m	550.--
1	SSV.003.02130	Cable, giant display RS-422	130m	590.--
1	SSV.003.02150	Cable, giant display RS-422	150m	650.--
1	SSV.003.02160	Cable, giant display RS-422	160m	690.--
1	SSV.003.02180	Cable, giant display RS-422	180m	770.--
1	SSV.003.02200	Cable, giant display RS-422	200m	830.--

Miscellaneous system options:

1	SSZ.009.2010	Warning lamp, red/green		500.--
1	SSZ.000.2010	Cooling unit For use in combination with 42 HU STEELMASTER cabinet in case the ambient temperature exceeds 30° C (86° F). The cooling unit is wall mounted, behind the STEELMASTER cabinet.		3'030.--

M i s c e l l a n e o u s

**Alternative cables, connections, hoses etc. to
articles listed in the basic system package**

For other distances between:

- Measuring unit - LPO unit
- Measuring unit - Blower unit (GE)

Connection cables, signal ME-LPO 90°-K1 (SSV.001.10LLL):

1	SSV.001.10005	Cable, signal ME-LPO 90°-K1	5m	1'030.--
1	SSV.001.10010	Cable, signal ME-LPO 90°-K1	10m	1'200.--
1	SSV.001.10015	Cable, signal ME-LPO 90°-K1	15m	1'400.--
1	SSV.001.10020	Cable, signal ME-LPO 90°-K1	20m	1'560.--

Cable/Hose Sets for the blower/filter unit:

1	SSV.005.09005	Cable/Hose set, GE, <4kW	5m	680.--
1	SSV.005.09010	Cable/Hose set, GE, <4kW	10m	1'170.--
1	SSV.005.09015	Cable/Hose set, GE, <4kW	15m	1'710.--
1	SSV.005.09020	Cable/Hose set, GE, <4kW	20m	2'360.--
1	SSV.005.09025	Cable/Hose set, GE, <4kW	25m	2'760.--
1	SSV.005.09030	Cable/Hose set, GE, <4kW	30m	3'240.--

**Tag / ticket printer, table top printers,
19" rack mounted printers, connection cables:**

1	A15 602 4000	Laser printer, USB, A4		610.--
1	A15 608 9030	Cable, USB	3.00m	37.--

Guarantee for the above laser printer with USB connection
Possible guarantee claims should be directed to the manufacturer of this product.

Non-contact temperature measurement (Pyrometer):

For the automatic conversion of measured values to 20°C.

Comprising:

- Digital high-end infrared converters for non-contact temperature measurement from 300...1300° C (572...2372° F)
- Signal output (0...20 mA)
- Extension module for PLC in measuring unit
- Additional module for "STEELMASTER" software

1	SSZ.000.7020	Pyrometer with cooling housing		18'800.--
1	SSZ.000.7010	Pyrometer without cooling housing		15'200.--

Interface for Pyrometer:

For the connection of a customer owned pyrometer.

The pyrometer must have a analogue output of 0...20 mA; other outputs on request.

1	SSZ.008.2000	Interface f. pyrometer (w/o pyrometer)		510.--
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Traversing system for withdrawing the measuring unit:

1	SSZ.008.2411	Traversing system SMS 100/160, 1.5m		16'700.--
1	SSZ.008.2431	Traversing system SMS 160-S4/S6, 1.5m		18'200.--

Sets of Spare Parts

Depending on the measuring unit (number of measuring axes), following spare part sets are available:

1	SM.9900.01100	Spare parts set ODAC 160JPK-S2		3'680.--
		Including:		
		4 Glass plates, emitter		
		4 Glass plates, receiver		
		8 Round cords		
		2 Filters		
		1 Laser diode adjusted		
		1 Motor assembled		

1	SM.9900.01300	Spare parts set ODAC 160JPK-S4 Including: 8 Glass plates, emitter 8 Glass plates, receiver 16 Round cords 2 Filters 1 Laser diode adjusted 1 Motor assembled	5'800.--
1	SM.9900.01400	Spare parts set ODAC 160JPK-S6 Including: 12 Glass plates, emitter 12 Glass plates, receiver 24 Round cords 2 Filters 1 Laser diode adjusted 1 Motor assembled	7'950.--

Technical Conditions

Technical Reserve:

In order to conclude and confirm an eventual order, all relevant conditions at the point of measurement have to be checked and agreed mutually. We reserve the need to modify our quotation technically and commercially accordingly.

Commercial Conditions

Commissioning/Training:

By our special engineer in your works, estimated totally 5 working days. Total cost, incl. travelling time:

1	ZU-COMM.01	Commissioning/Instructions	8'450.--
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Air tickets, hotel and food:

To be invoiced separately according result, estimated at totally:

1	ZU-COMM.04	Air tickets/hotel/food Europe	3'140.--
1	ZU-COMM.03	Air tickets/hotel/food Oversea	6'350.--

Waiting times:

Waiting times of more than 1 day, which are not our fault will be invoiced additionally.

1	ZU-COMM.02	Waiting times of more than 1 day /day	1'150.--
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Mounting/Cabling:

By yourself, according our instructions.

COMMERCIAL CONDITIONS

Prices	The quoted prices are to be understood for goods FCA CH-2552 Orpund, the costs of packing, freight, insurance as well as the customs/taxes are not included.
Delivery	6-8months after receipt of the advance payment.
Payment terms	100% Payment against proforma invoice, confirmed by: Berner Kantonalbank AG, Bundesplatz 8, CH-3001 Berne, Switzerland IBAN CHF: CH19 0079 0016 9942 4139 9 IBAN EUR: CH63 0079 0016 9399 3603 0 IBAN USD: CH75 0079 0016 9399 3649 3 IBAN GBP: CH96 0079 0016 9399 3621 2 BIC: KBBECH22XXX All banking charges in- and outside Switzerland are for your account.
Validity of quotation	2 months
Commissioning	We recommend commissioning of the equipment and instructions of your personnel by our service department. We will be pleased to submit our quotation.
Instruction manuals	<p>In a ZUMBACH-company language (German, English, French). The included documentation is in accordance with ZUMBACH standards and corresponds to the language defined in the standard offer. Diagrams (electrical or mechanical) are not included in the shipment of supply. Other documentation or languages (not defined in the offer/order confirmation) upon request only, subject to additional charge.</p> <p>Important: For environmental reasons free instruction manuals will be provided in the form of a PDF file on a USB stick. No printed manuals will accompany the delivered goods unless they have been explicitly requested in the written customer order and mentioned on the order confirmation. Printed instruction manuals ordered in this way will be included in the shipment and will be free of charge. Printed manuals which are subsequently ordered and delivered will be liable for costs.</p>

In addition our general terms and conditions of sale are part of this quotation. S.E.&O.