



Via Leonino da Zara, 36/B
35020 ALBIGNASEGO (PD) - Italy
Tel. +39 049 5207427

ISSUED BY :	A. Roverato	CLIENT REF :	PR 200
OFFER :	F240109	REV: 0	ATTENTION OF :
CLIENT :	DELTA GMBH	DATE :	21/06/2024
PROJECT :	BOC		

TECHNICAL OFFER

Dear Sir / Madame,

With reference to the subject enquiry, we are pleased to submit our best technical offer in accordance with the provided schedules and specifications.

Our offer is based on the following documents included in your enquiry:

Control valve DSH PR-200

KG Equipments would like to thank you for the opportunity to present our offer and are happy to discuss any technical or commercial clarifications you may have.

Best regards



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SECTION 2.0 - TECHNICAL



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SECTION 2.1 - TECHNICAL NOTES

We have considered a metal seat with a leakage class IV

Min Air Supply Pressure: 4,5 barg

Normal Air Supply: 7 barg

Max Air Supply: 7,5 barg

Tubing Material: 3/8" SS316L

Fittings Type and material: UNILOK, SS316

Control Panel will be installed on actuator with the flow from left to right

We will provided ATEX certification for all instrumentations

Electrical connection: M20x1,5"

Regulator set @2,75 barg



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SECTION 2.2 - TECHNICAL DEVIATIONS



OFFER : F240109 REVO

PROJECT: BOC

CLIENT : DELTA GMBH

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CLIENT REF :

PR 200

ITEM	KG ITEM	QTY	VALVE TAGS	VALVE MODEL	VALVE TYPE	FLOW CHAR. CURVE	VALVE DN	VALVE TRIM SIZE	CLASS	END CONN.	BODY/ BONNET MATERIAL	Trim Material				BOLTING	BONNET TYPE	PACKING	GASKET	LEAKAGE CLASS	ACTUATOR			POSITIONER			ACCESSORIES	REMARKS
												PLUG/ DISC	SEAT	GUIDE/ CAGE	STEM						TYPE/MODEL	FAIL POS	MANUAL COMMAND	TYPE	ENCLOSURE	IN/OUT SIGNAL		
1	1	1	LCV-0001A	GL3C	LINEAR GLOBE STRAIGHT WAY-CAGE GUIDED - MULTISTAGES ANTICAVITATION	Linear	1"	1"	300	RF	A350 LF2	SS 316	SS 316+ STELL. gr.6	SS 316 (Chrome Plated)	SS 316	A320 L7M A194 7M	STANDARD	PTFE	SS 316L + GRAPH.	IV	LINEAR PNEUMATIC DIAPHRAGM - LPD111	CLOSE	NO	Electro Pneumatic HART communication	Eex-ia IIB T5 / IP-65	Analog 4 + 20 mA + Digital HART	FILTER REGULATOR in AI with gauge	MULTISTAGES ANTICAVITATION
2	2	1	LCV-0001B	GL3C	LINEAR GLOBE STRAIGHT WAY-CAGE GUIDED - MULTISTAGES ANTICAVITATION	Linear	1"	1"	300	RF	A350 LF2	SS 316	SS 316+ STELL. gr.6	SS 316 (Chrome Plated)	SS 316	A320 L7M A194 7M	STANDARD	PTFE	SS 316L + GRAPH.	IV	LINEAR PNEUMATIC DIAPHRAGM - LPD111	CLOSE	NO	Electro Pneumatic HART communication	Eex-ia IIB T5 / IP-65	Analog 4 + 20 mA + Digital HART	FILTER REGULATOR in AI with gauge	MULTISTAGES ANTICAVITATION
TOTAL		2																										

NOTES	APPLICABLE SPEC & DOCS	NOTE
1 Valves designed according to:	ASME B16.34 ISA 75s IEC 60534	Control valve DSH PR-200

TESTING:	ACC. TO	FLANGED ENDS	ACC TO.	CERTIFICATION (BS EN 10204)		DEVIATIONS:
				3.1	2.2	
HYDROSTATIC BODY TEST	ISA 75.19 IEC 60534-4	UP TO 24" (EXCEPT 22")	B16.5	BODY / BONNET / PLUG / SEAT / STEM		
SEAT LEAK TEST	ANSI FCI 70.2 IEC 60534-4	LARGER DIAMETER	B16.47 Class A			
DIMENSIONAL CHECK	APPROVED DWG	WELDING ENDS	ACC TO.	ALL OTHER PARTS		
PERFORMANCE TEST	IEC 60534-4 mandatory Tests	BW	B16.25	Fire safe design according to API 607, API 6FA, ISO 10497.		
NO SUPPLEMENTARY TESTS		SW	B16.11			



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SECTION 2.4 - PAINTING

Valves and relevant accessories not in stainless steel or otherwise corrosion protected will be painted according to the application and local environment.

1st Coat : Hempadur Fast Dry 15560 Or Equivalent
2 component zink fosfate HB primer
Layer thickness: min. 75 µm DFT

2nd Coat: Hempadur 15570 Or Equivalent
2 component epoxy primer,
Layer thickness: min. 75 µm DFT

Final Coat : Hempthane HS 55610 Or Equivalent
Top coat is a high build 2 component acrylic polyurethane finish.
Layer thickness: min. 75 µm DFT

Dilution: as specified in the final coating technical documentation
Remover: BENZINE D or other appropriate remover
Drying time: as specified in the final coating technical documentation
Hardness: as specified in the final coating technical documentation

Final dry film thickness will be min. 225 µm

4.3. Colors:

Process and utility piping Pressure vessels, heat exchanger	RAL 7038
Compressors, Pumps	RAL 7038
Motors	RAL5015
Safety valves	RAL 7038
Base frame and external steel work	RAL 7038
Ladders, stages & supports	RAL 7038
Local panel, Junction boxes	Mfr. Standard



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SECTION 4.0 - INSTALLATION & OPERATION

SECTION 4.1 - VALVE ORIENTATION

CAUTION: Components utilized in some systems are orientation specific. Unless otherwise informed in your purchase order, KG assumes a vertical stem, protruding upward for globe and ball control valve, a horizontal stem for butterfly control valve. Other orientations may impact the cost of components other of the valve that could be included in this quotation and any special requirements not identified prior to quote preparation.

SECTION 4.2 - OPERATING CONDITIONS

All valves are suitable to be used according to the design and operating condition given in the customer specifications and datasheets.

In case no indications have been supplied the valves should be intended for general service.



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SECTION 5.0 - QUALITY

SECTION 5.1 - QUALITY CONTROL SYSTEM & QUALITY PLAN

KG equipments production activities are governed by our ISO 9001 certified Quality Control System and Quality plan, which can be made available on request.

SECTION 5.2 - TEST PROCEDURES

The prices quoted are inclusive of KG equipments standard inspection and testing according to our internal procedure ITP Std, (available on request).

Should you have specific requirements which differ from our standard, please submit these to KG equipments for technical evaluation; should these have any technical or commercial impact on our quotation we may need to revise our offer.

SECTION 5.3 - ITP

In case of missing comments, KG will proceed with the standard ITP and related procedures.

Standard ITP has a review point at pressure tests (hydrostatic body and seat leakage), while a witness point at final functional tests.

Please be advised that the above-mentioned ITP includes 100% internal testing (10% witness).

Should you have specific requirements which differ from our standard, an additional cost will be considered.



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SECTION 6.0 - DOCUMENTATION

Standard package is usually submitted 5/6 weeks after Order Acknowledgment, consisting on one electronic copy to include the following:

- # Valve drawings complete with material list
- # Pneumatic and electric schematic
- # Control valve sizing calculation
- # Control valve datasheet
- # KG Equipments Inspection and Test Plan
- # NDE procedure (if any)
- # Pressure and functional test procedure
- # Painting procedure
- # Packing / preservation procedure
- # Installation, Operation and Maintenance Manual
- # Nameplate Drawings
- # Final Data Book

The following certificate are available upon request at the time of shipment:

- # Pressure and functional test certificates