

Suitable concrete reinforcement is recommended because of concrete shrinkage and foundation loading. The amount of the concrete reinforcement depends on the size and of the foundation and foundation loadin, and must be carefully calculated by local civil engineering according to local standards and regulations.

The height of the grouting must extend 5 - 8 mm (0.20 - 0.31 in) below the top surface of the beam so that the space inside the beam is completely filled with concrete. Shape the outer edges of the grouting so that they are slanting as shown in fig. 5. Pour the grouting concrete both into the mould and into the baseplate beam through the hole in the beam. Water the grouting during setting to prevent cracking.

Recommended strength class of the concrete is appr. 35 MPa (5075 psi) (design strength K 35).

Table 5, Grouting mould

L1 + min. 110 mm, L1 ≤ 2000 mm (L1 + min. 4.33 in, L1 ≤ 78.74 in)	B1 + min. 110 mm, B1 ≤ 2000 mm (B1 + min. 4.33 in, B1 ≤ 78.74 in)
L1 + min. 140 mm, L1 > 2000 mm (L1 + min. 5.51 in, L1 > 78.74 in)	B1 + min. 140 mm, B1 > 2000 mm (B1 + min. 5.51 in, B1 > 78.74 in)

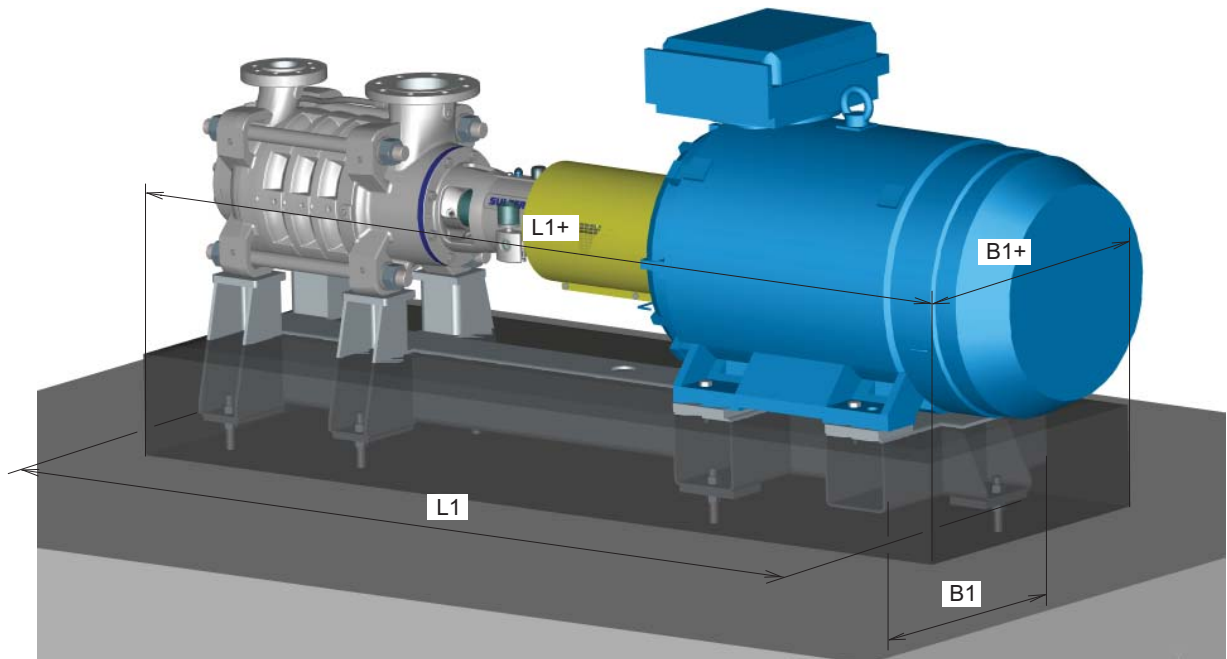


Fig. 4

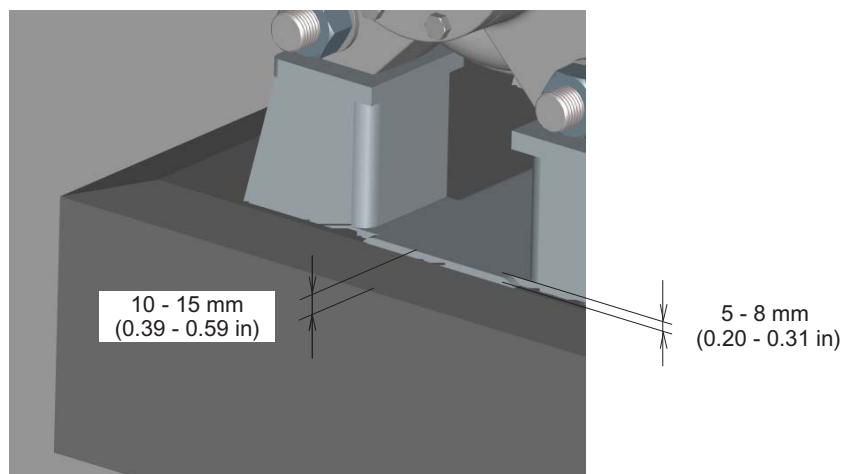


Fig. 5

Customer Price Sheet Detailed

Customer	AMV Chemie Technologie GmbH	Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project Name		Inquiry Date	
Customer reference	2022078	Bid Submitted Date	
Item number	2-P-6213 A-D	Date Last Saved	09 Mar 2023 16:12
Application	RO HP Membrane Feed - 4204	Type / Size / Stages	MBN80-255 / 3
Pump speed	2811 rpm		

Totals

Pump and Accessories Total	EUR 148.752		
Driver Total	EUR 41.996		
No Group Total	EUR 0		
Tests Total	EUR 1.211		
Grand Total	EUR 191.959	Lead Time Total	N/A

Pump and Accessories

Qty	Description		
4	MBN80-255 / 3 Bareshaft pump Pump design type: Standard Pump scope Quality requirement Quality requirement: CE (2006/42/EC) Quality requirement: EN ISO 5199:2002 Class II Hydraulic performance acceptance grade ISO 9906:2012 / HI 14.6-2011 Grade 2B Guaranteed efficiency Pump material options		
4	Casing material: 41 / J0265 ASTM A890 3A - Duplex SS Wet end options Temperature range: Normal (under 100 C or 212 F) Sealing method Mechanical seal Mechanical seal fitting: Single, Cartridge, Throttle (MS32) Mechanical seal type: Sulzer TS1		
4	Mechanical seal material (seal faces, body, elastomers): SiC/SiC-316SS-EPDM (11) Seal piping plan: Similar to plan 11		
4	Seal piping material: 254 SMO pipe Bearing unit options Lubrication: Oil Assembly Baseplate		
4	Baseplate type: For pump & motor, steel, painted (NP) Foundation screw type: Grouted Coupling Coupling style: Spacer Coupling manufacturer: Rex Viva VS (XVSF)		
4	Coupling size: VS190		
4	Coupling guard: Steel + ZnK (1K)		
4	Packaging of pump and parts Packaging: Seaworthy packaging (closed crate) Testing, Certificates, Painting, and Documentation Painting/Outside surfacing Painting method: Standard, Corrosivity C4 (NZ), N31047 Paint color: NCS1700 Warranty Warranty: standard 12 months		

Driver

Qty	Description		
	Driver		
4	Motor detail: ABB M3BP 2 poles 132kW IP55 IE3 315M Cast iron Foot-mounted Motor nominal voltage: 400 VD Motor included option codes		
4	Motor included option codes: 041: Bearings regreasable via grease nipples		
4	Motor included option codes: 043: SPM nipples		
4	Motor included option codes: 114: Special paint colour, standard grade		
4	Motor included option codes: 126: Tag plate		
4	Motor included option codes: 148: Routine test report		
4	Motor included option codes: 436: PTC – thermistor (3 in series), 150 °C, in stator winding		
4	Motor included option codes: 451: Heating element 200-240 V		
4	Motor included option codes: 701: Insulated bearing at N-end		
4	Motor included option codes: 704: EMC cable gland		
4	Motor included option codes: VC525 - External earthing bolt		

No Group

Qty	Description	Average Unit Price	Extended Price
4	"Please consider of changing the motor efficiency class to IE4 if the planned delivery date is 1st of July 2023 or later (EU 2019/1781)"		

Tests

Qty	Description	Average Unit Price	Extended Price
	Tests		
1	EN 10204:2004-2.2 (EN22)		
1	Impeller balance test ISO 21940-11:2016 Grade 2.5, Two Plane, certificate included		
1	Hydrostatic Test, certificate included (ST05)		
1	Hydraulic performance test, water ISO 9906:2012/Hi 14.6-2011 Grade 2B (PT09)		

Scope of Supply

Customer	AMV Chemie Technologie GmbH	Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project Name		Inquiry Date	
Customer reference	2022078	Bid Submitted Date	
Item number	2-P-6213 A-D	Date Last Saved	09 Mar 2023 16:12
Application	RO HP Membrane Feed - 4204	Type / Size / Stages	MBN80-255 / 3
Pump speed	2811 rpm		

Pump and Accessories

Qty	Description
4	<p>MBN80-255 / 3</p> <p>Bareshaft pump Pump design type: Standard</p> <p>Pump scope Quality requirement Quality requirement: CE (2006/42/EC) Quality requirement: EN ISO 5199:2002 Class II</p> <p>Hydraulic performance acceptance grade ISO 9906:2012 / HI 14.6-2011 Grade 2B</p> <p>Guaranteed efficiency</p> <p>Pump material options</p>
4	<p>Casing material: 41 / J0265 ASTM A890 3A - Duplex SS</p> <p>Wet end options Temperature range: Normal (under 100 C or 212 F)</p> <p>Sealing method</p> <p>Mechanical seal Mechanical seal fitting: Single, Cartridge, Throttle (MS32) Mechanical seal type: Sulzer TS1</p>
4	<p>Mechanical seal material (seal faces, body, elastomers): SiC/SiC-316SS-EPDM (11) Seal piping plan: Similar to plan 11</p>
4	<p>Seal piping material: 254 SMO pipe</p> <p>Bearing unit options Lubrication: Oil</p> <p>Assembly</p> <p>Baseplate</p>
4	<p>Baseplate type: For pump & motor, steel, painted (NP) Foundation screw type: Grouted</p> <p>Coupling Coupling style: Spacer Coupling manufacturer: Rex Viva VS (XVSF)</p>
4	<p>Coupling size: VS190</p>
4	<p>Coupling guard: Steel + ZnK (1K)</p> <p>Packaging of pump and parts</p>
4	<p>Packaging: Seaworthy packaging (closed crate)</p> <p>Testing, Certificates, Painting, and Documentation</p> <p>Painting/Outside surfacing Painting method: Standard, Corrosivity C4 (NZ), N31047 Paint color: NCS1700</p> <p>Warranty Warranty: standard 12 months</p>

Driver

Qty	Description
	<p>Driver</p>
4	<p>Motor detail: ABB M3BP 2 poles 132kW IP55 IE3 315M Cast iron Foot-mounted Motor nominal voltage: 400 VD Motor included option codes</p>
4	<p>Motor included option codes: 041: Bearings regreasable via grease nipples</p>
4	<p>Motor included option codes: 043: SPM nipples</p>

Driver

Qty	Description
4	Motor included option codes: 114: Special paint colour, standard grade
4	Motor included option codes: 126: Tag plate
4	Motor included option codes: 148: Routine test report
4	Motor included option codes: 436: PTC – thermistor (3 in series), 150 °C, in stator winding
4	Motor included option codes: 451: Heating element 200-240 V
4	Motor included option codes: 701: Insulated bearing at N-end
4	Motor included option codes: 704: EMC cable gland
4	Motor included option codes: VC525 - External earthing bolt

No Group

Qty	Description
4	"Please consider of changing the motor efficiency class to IE4 if the planned delivery date is 1st of July 2023 or later (EU 2019/1781)"

Tests

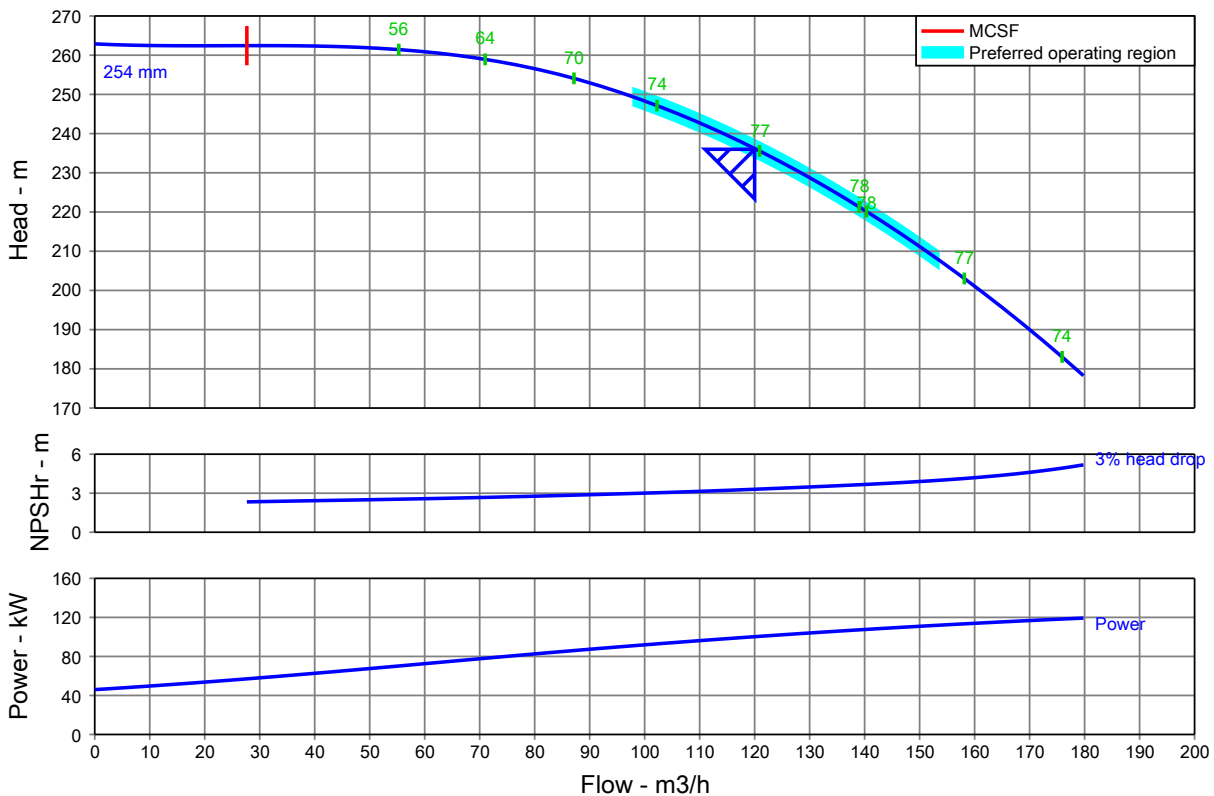
Qty	Description
	Tests
1	EN 10204:2004-2.2 (EN22)
1	Impeller balance test ISO 21940-11:2016 Grade 2.5,Two Plane, certificate included
1	Hydrostatic Test, certificate included (ST05)
1	Hydraulic performance test, water ISO 9906:2012/HI 14.6-2011 Grade 2B (PT09)

Pump Performance Datasheet

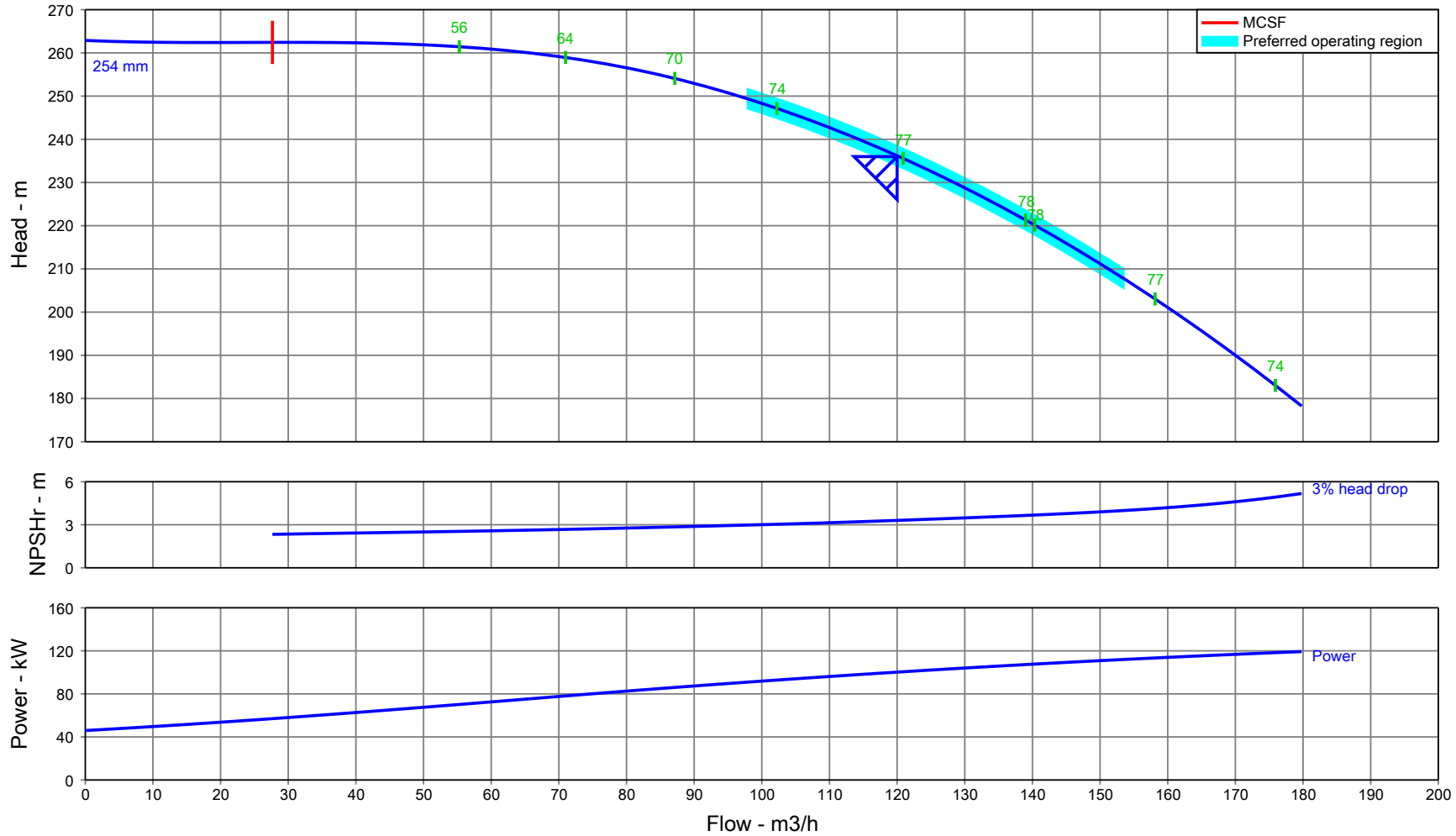
Customer	: AMV Chemie Technologie GmbH	Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0
Customer reference	: 2022078	Type / Size	: MBN80-255
Item number	: 2-P-6213 A~D	Stages	: 3
Service	: RO2 High Pressure Pump	Based on curve number	: K06961 Rev 1
Quantity	: 4	Date of Last Update	: 09 Mar 2023 16:12

Operating Conditions		Liquid	
Flow, rated	: 120,0 m3/h	Liquid type	: Water
Differential head / pressure, rated (requested)	: 236,0 m	Additional liquid description	:
Suction pressure, rated / max	: 1,00 / 1,00 bar.g	Solids diameter, max	: 0,00 mm
NPSH available, rated	: Ample	Solids concentration, by volume	: 0,00 %
Site Supply Frequency	: 50 Hz	Temperature, rated / max	: 7,00 / 35,00 deg C
Performance		Fluid density, rated / max	: 0,998 / 0,998 kg/dm3
Speed criteria	: Variable speed	Viscosity, rated	: 1,00 cSt
Speed, rated	: 2811 rpm	Vapor pressure, rated	: 0,02 bar.a
Impeller diameter, rated	: 254 mm	Material	
Impeller diameter, maximum	: 254 mm	Material selected	: 41 / J0265 ASTM A890 3A - Duplex SS
Impeller diameter, minimum	: 215 mm	Pressure Data	
Efficiency	: 76,90 %	Maximum casing/bowl working pressure	: 26,73 bar.g
NPSH (3% head drop) / margin required	: 3,30 / 0,00 m	Maximum allowable working pressure	: 40,00 bar.g
nq (imp. eye flow) / S (imp. eye flow)	: 22 / 209 Metric units	Maximum allowable suction pressure	: 16,00 bar.g
MCSF	: 27,66 m3/h	Hydrostatic test pressure	: 60,00 bar.g
Head, maximum, rated diameter	: 262,9 m	Driver & Power Data (@Max density)	
Head rise to shutoff	: 11,29 %	Driver sizing specification	: Rated power
Flow, best eff. point	: 139,7 m3/h	Margin over specification	: 10,00 %
Flow ratio, rated / BEP	: 85,92 %	Service factor	: 1,00
Diameter ratio (rated / max)	: 100,00 %	Power, hydraulic	: 77,07 kW
Head ratio (rated dia / max dia)	: 100,00 %	Power, rated	: 100 kW
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00	Power, maximum, rated diameter	: 119 kW
Selection status	: Acceptable	Minimum recommended motor rating	: 132 kW / 177 hp

Hydraulic Performance Acceptance Test: ISO 9906:2012 / HI 14.6-2011 Grade 2B



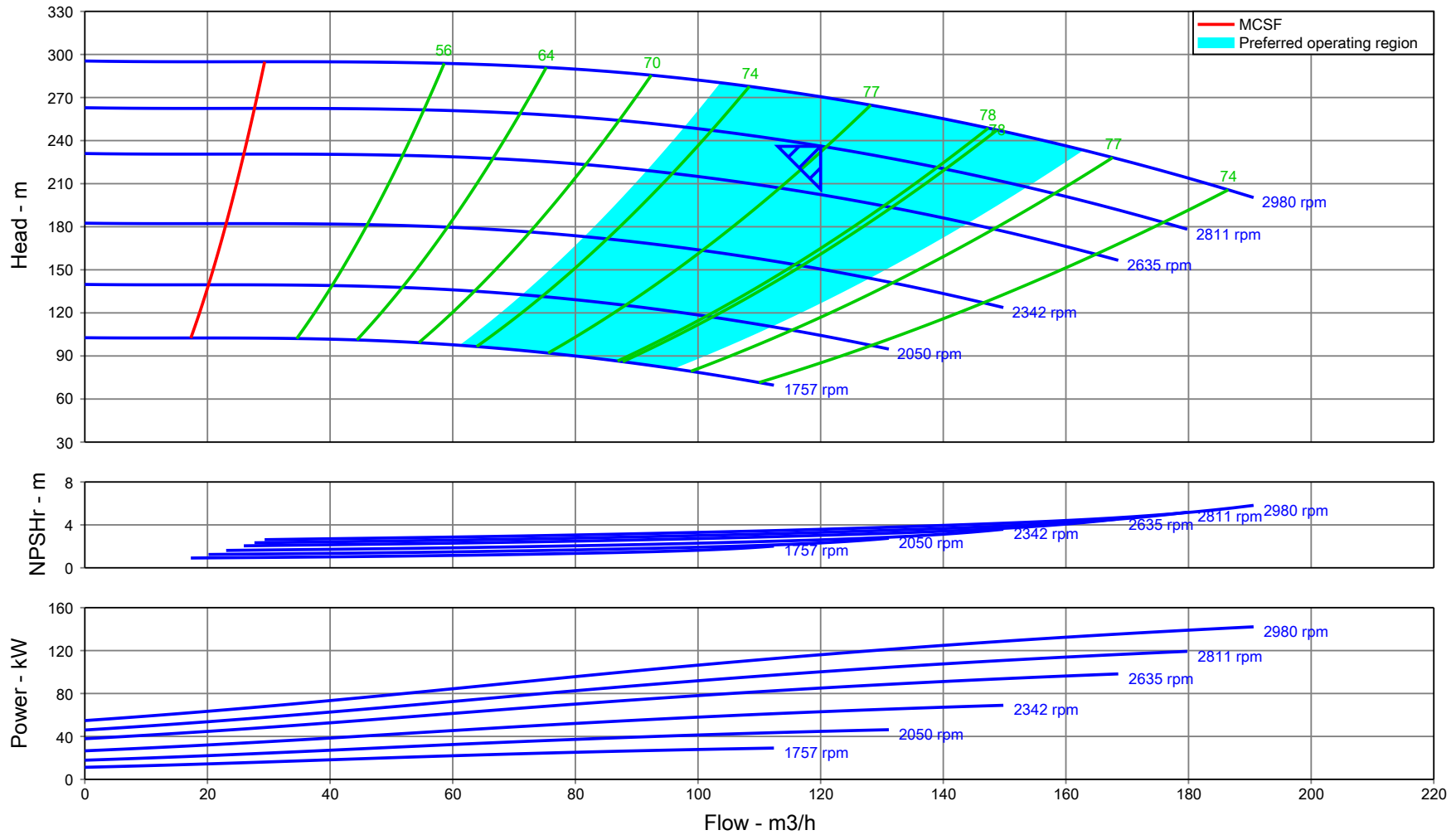
Pump Performance Curve



Hydraulic Performance Acceptance Test: ISO 9906:2012 / HI 14.6-2011 Grade 2B

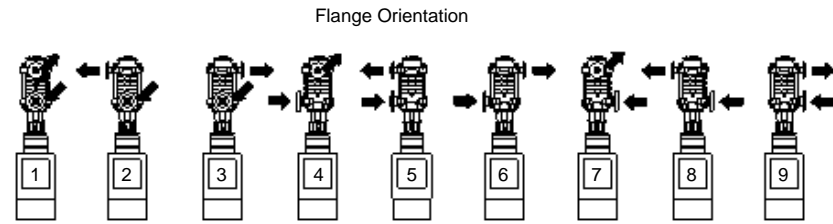
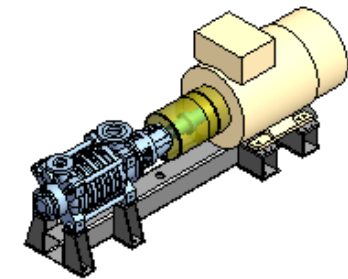
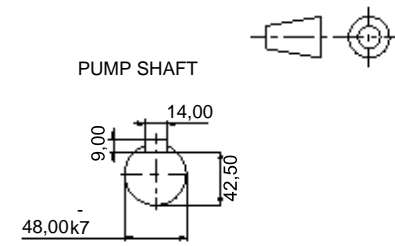
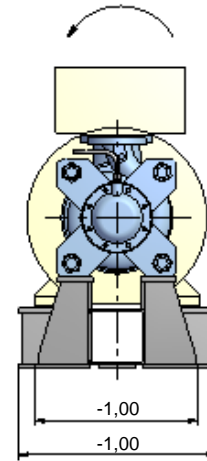
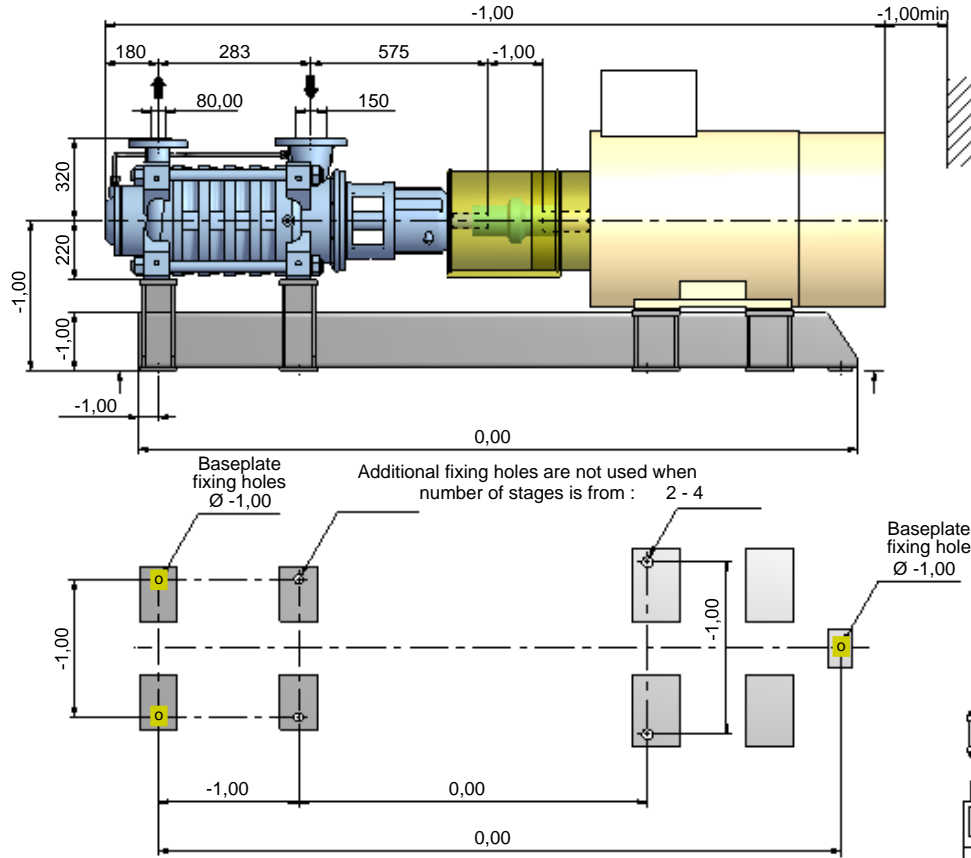
Customer	: AMV Chemie Technologie GmbH	Type / Size	: MBN80-255	Flow, rated	: 120,0 m ³ /h
Customer reference	: 2022078	Stages	: 3	Differential head / pressure, rated	: 236,0 m
Item number	: 2-P-6213 A-D	Speed, rated	: 2811 rpm	Liquid type	: Water
Service	: RO2 High Pressure Pump	Based on curve number	: K06961 Rev 1	Additional liquid description	:
Quantity	: 4	Efficiency	: 76,90 %	Temperature, rated / max	: 7,00 / 35,00 deg C
Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0	Power, rated	: 100 kW	Fluid density, rated / max	: 0,998 / 0,998 kg/dm ³
Date of Last Update	: 09 Mar 2023 16:12	NPSH (3% head drop)	: 3,30 m	Viscosity, rated	: 1,00 cSt
				Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00

Multi-Speed Performance Curve



Customer	: AMV Chemie Technologie GmbH	Stages	: 3	Nominal speed	: 2982 rpm
Customer reference	: 2022078	Based on curve number	: K06961 Rev 1	Flow, rated	: 120,0 m ³ /h
Item number	: 2-P-6213 A-D	Efficiency	: 76,90 %	Differential head / pressure, rated	: 236,0 m
Service	: RO2 High Pressure Pump	Power, rated	: 100 kW	Speed, rated	: 2811 rpm
Quantity	: 4	NPSH (3% head drop)	: 3,30 m	Impeller diameter, rated	: 254 mm
Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0	Site Supply Frequency	: 50 Hz	Fluid density, rated / max	: 0,998 / 0,998 kg/dm ³
Date of Last Update	: 09 Mar 2023 16:12			Viscosity, rated	: 1,00 cSt
Type / Size	: MBN80-255			Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00

Dimensions in mm - NOTE: DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED



MOTOR INFORMATION

Power	132 kW
Frame size	315M
Synchronous speed	3000 rpm
Voltage	400 VD
Frequency	VSD
Enclosure	-

PUMP INFORMATION

Rated speed	2811rpm
Pump Size	MBN80-255
No. of Stages	3

WEIGHTS

Pump	463,0 kg
Baseplate	464,0 kg
Motor	965,0 kg
TOTAL	1.892,0 kg

FLANGES

	Size	Drilling
Suction Flange	150	EN_PN16
Discharge Flange	80,00	EN_PN40

TENDER SUMMARY

Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project name	
Customer	AMV Chemie Technologie GmbH
Customer reference	2022078
Item number	2-P-6213 A-D
Date Last Saved	2023-03-09 15:06:34
Service	RO2 High Pressure Pump



Customer Price Sheet Detailed

Customer	AMV Chemie Technologie GmbH	Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project Name		Inquiry Date	
Customer reference	2022078	Bid Submitted Date	
Item number	2-P-9306A~C	Date Last Saved	09 Mar 2023 16:00
Application	RO HP Membrane Feed - 4204	Type / Size / Stages	MBN80-255 / 3
Pump speed	2969 rpm		

Totals

Pump and Accessories Total	EUR 111.564		
Driver Total	EUR 27.789		
No Group Total	EUR 0		
Tests Total	EUR 1.211		
Grand Total	EUR 140.564	Lead Time Total	N/A

Pump and Accessories

Qty	Description		
3	MBN80-255 / 3 Bareshaft pump Pump design type: Standard Pump scope Quality requirement Quality requirement: CE (2006/42/EC) Quality requirement: EN ISO 5199:2002 Class II Hydraulic performance acceptance grade ISO 9906:2012 / HI 14.6-2011 Grade 2B Guaranteed efficiency Pump material options		
3	Casing material: 41 / J0265 ASTM A890 3A - Duplex SS Wet end options Temperature range: Normal (under 100 C or 212 F) Sealing method Mechanical seal Mechanical seal fitting: Single, Cartridge, Throttle (MS32) Mechanical seal type: Sulzer TS1		
3	Mechanical seal material (seal faces, body, elastomers): SiC/SiC-316SS-EPDM (11) Seal piping plan: Similar to plan 11		
3	Seal piping material: 254 SMO pipe Bearing unit options Lubrication: Oil Assembly Baseplate		
3	Baseplate type: For pump & motor, steel, painted (NP) Foundation screw type: Grouted Coupling Coupling style: Spacer Coupling manufacturer: Rex Viva VS (XVSF)		
3	Coupling size: Special coupling information required		
3	Coupling guard: Steel + ZnK (1K) Packaging of pump and parts		
3	Packaging: Seaworthy packaging (closed crate) Testing, Certificates, Painting, and Documentation Painting/Outside surfacing Painting method: Standard, Corrosivity C4 (NZ), N31047 Paint color: NCS1700 Warranty Warranty: standard 12 months		

Driver

Qty	Description
	Driver
3	Motor detail: ABB M3BP 2 poles 110kW IP55 IE3 315S Cast iron Foot-mounted Motor nominal voltage: 400 VD Motor included option codes
3	Motor included option codes: 041: Bearings regreasable via grease nipples
3	Motor included option codes: 043: SPM nipples
3	Motor included option codes: 114: Special paint colour, standard grade
3	Motor included option codes: 126: Tag plate
3	Motor included option codes: 148: Routine test report
3	Motor included option codes: 436: PTC – thermistor (3 in series), 150 °C, in stator winding
3	Motor included option codes: 451: Heating element 200-240 V
3	Motor included option codes: 701: Insulated bearing at N-end
3	Motor included option codes: 704: EMC cable gland
3	Motor included option codes: VC525 - External earthing pont

No Group

Qty	Description
3	"Please consider of changing the motor efficiency class to IE4 if the planned delivery date is 1st of July 2023 or later (EU 2019/1781)"

Tests

Qty	Description
	Tests
1	EN 10204:2004-2.2 (EN22)
1	Impeller balance test ISO 21940-11:2016 Grade 2.5, Two Plane, certificate included
1	Hydrostatic Test, certificate included (ST05)
1	Hydraulic performance test, water ISO 9906:2012/HI 14.6-2011 Grade 2B (PT09)

Scope of Supply

Customer	AMV Chemie Technologie GmbH	Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project Name		Inquiry Date	
Customer reference	2022078	Bid Submitted Date	
Item number	2-P-9306A~C	Date Last Saved	09 Mar 2023 16:00
Application	RO HP Membrane Feed - 4204	Type / Size / Stages	MBN80-255 / 3
Pump speed	2969 rpm		

Pump and Accessories

Qty	Description
3	<p>MBN80-255 / 3</p> <p>Bareshaft pump Pump design type: Standard</p> <p>Pump scope Quality requirement Quality requirement: CE (2006/42/EC) Quality requirement: EN ISO 5199:2002 Class II</p> <p>Hydraulic performance acceptance grade ISO 9906:2012 / HI 14.6-2011 Grade 2B</p> <p>Guaranteed efficiency</p> <p>Pump material options</p>
3	<p>Casing material: 41 / J0265 ASTM A890 3A - Duplex SS</p> <p>Wet end options Temperature range: Normal (under 100 C or 212 F)</p> <p>Sealing method</p> <p>Mechanical seal Mechanical seal fitting: Single, Cartridge, Throttle (MS32) Mechanical seal type: Sulzer TS1</p>
3	<p>Mechanical seal material (seal faces, body, elastomers): SiC/SiC-316SS-EPDM (11) Seal piping plan: Similar to plan 11</p>
3	<p>Seal piping material: 254 SMO pipe</p> <p>Bearing unit options Lubrication: Oil</p> <p>Assembly</p> <p>Baseplate</p>
3	<p>Baseplate type: For pump & motor, steel, painted (NP) Foundation screw type: Grouted</p> <p>Coupling Coupling style: Spacer Coupling manufacturer: Rex Viva VS (XVSF)</p>
3	<p>Coupling size: Special coupling information required</p>
3	<p>Coupling guard: Steel + ZnK (1K)</p> <p>Packaging of pump and parts</p>
3	<p>Packaging: Seaworthy packaging (closed crate)</p> <p>Testing, Certificates, Painting, and Documentation</p> <p>Painting/Outside surfacing Painting method: Standard, Corrosivity C4 (NZ), N31047 Paint color: NCS1700</p> <p>Warranty Warranty: standard 12 months</p>

Driver

Qty	Description
	<p>Driver</p>
3	<p>Motor detail: ABB M3BP 2 poles 110kW IP55 IE3 315S Cast iron Foot-mounted Motor nominal voltage: 400 VD Motor included option codes</p>
3	<p>Motor included option codes: 041: Bearings regreasable via grease nipples</p>
3	<p>Motor included option codes: 043: SPM nipples</p>

Driver

Qty	Description
3	Motor included option codes: 114: Special paint colour, standard grade
3	Motor included option codes: 126: Tag plate
3	Motor included option codes: 148: Routine test report
3	Motor included option codes: 436: PTC – thermistor (3 in series), 150 °C, in stator winding
3	Motor included option codes: 451: Heating element 200-240 V
3	Motor included option codes: 701: Insulated bearing at N-end
3	Motor included option codes: 704: EMC cable gland
3	Motor included option codes: VC525 - External earthing pont

No Group

Qty	Description
3	"Please consider of changing the motor efficiency class to IE4 if the planned delivery date is 1st of July 2023 or later (EU 2019/1781)"

Tests

Qty	Description
	Tests
1	EN 10204:2004-2.2 (EN22)
1	Impeller balance test ISO 21940-11:2016 Grade 2.5,Two Plane, certificate included
1	Hydrostatic Test, certificate included (ST05)
1	Hydraulic performance test, water ISO 9906:2012/Hi 14.6-2011 Grade 2B (PT09)

Pump Performance Datasheet

Customer	: AMV Chemie Technologie GmbH	Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0
Customer reference	: 2022078	Type / Size	: MBN80-255
Item number	: 2-P-9306A~C	Stages	: 3
Service	: RO1 High Pressure Pump	Based on curve number	: K06961 Rev 1
Quantity	: 3	Date of Last Update	: 09 Mar 2023 16:00

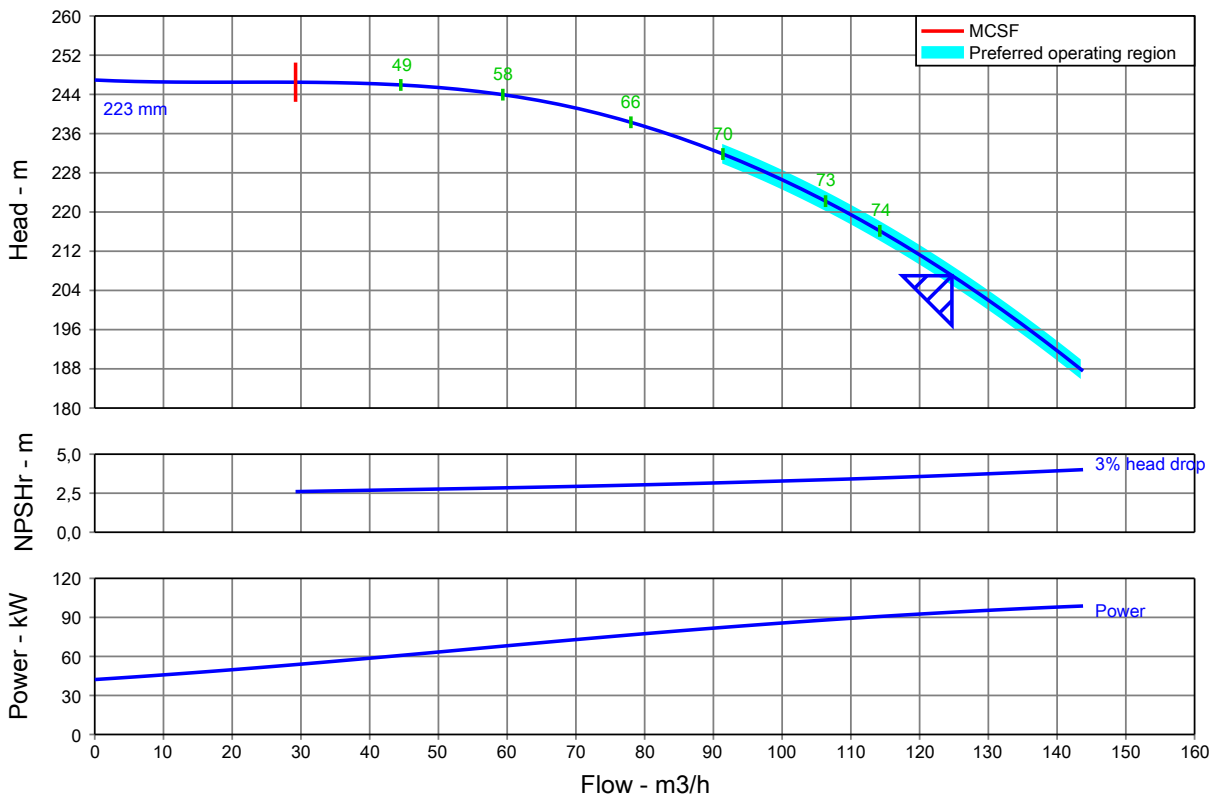
Operating Conditions		Liquid	
Flow, rated	: 124,7 m3/h	Liquid type	: Water
Differential head / pressure, rated (requested)	: 207,0 m	Additional liquid description	:
Suction pressure, rated / max	: 1,00 / 1,00 bar.g	Solids diameter, max	: 0,00 mm
NPSH available, rated	: Ample	Solids concentration, by volume	: 0,00 %
Site Supply Frequency	: 50 Hz	Temperature, rated / max	: 20,00 / 20,00 deg C

Performance		Material	
Speed criteria	: Variable speed	Material selected	: 41 / J0265 ASTM A890 3A - Duplex SS
Speed, rated	: 2969 rpm		
Impeller diameter, rated	: 223 mm		
Impeller diameter, maximum	: 254 mm		
Impeller diameter, minimum	: 215 mm		
Efficiency	: 74,72 %		
NPSH (3% head drop) / margin required	: 3,65 / 0,00 m		
nq (imp. eye flow) / S (imp. eye flow)	: 22 / 209 Metric units		
MCSF	: 29,22 m3/h		
Head, maximum, rated diameter	: 246,9 m		
Head rise to shutoff	: 19,26 %		
Flow, best eff. point	: 130,4 m3/h		
Flow ratio, rated / BEP	: 95,63 %		
Diameter ratio (rated / max)	: 87,60 %		
Head ratio (rated dia / max dia)	: 78,14 %		
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00		
Selection status	: Acceptable		

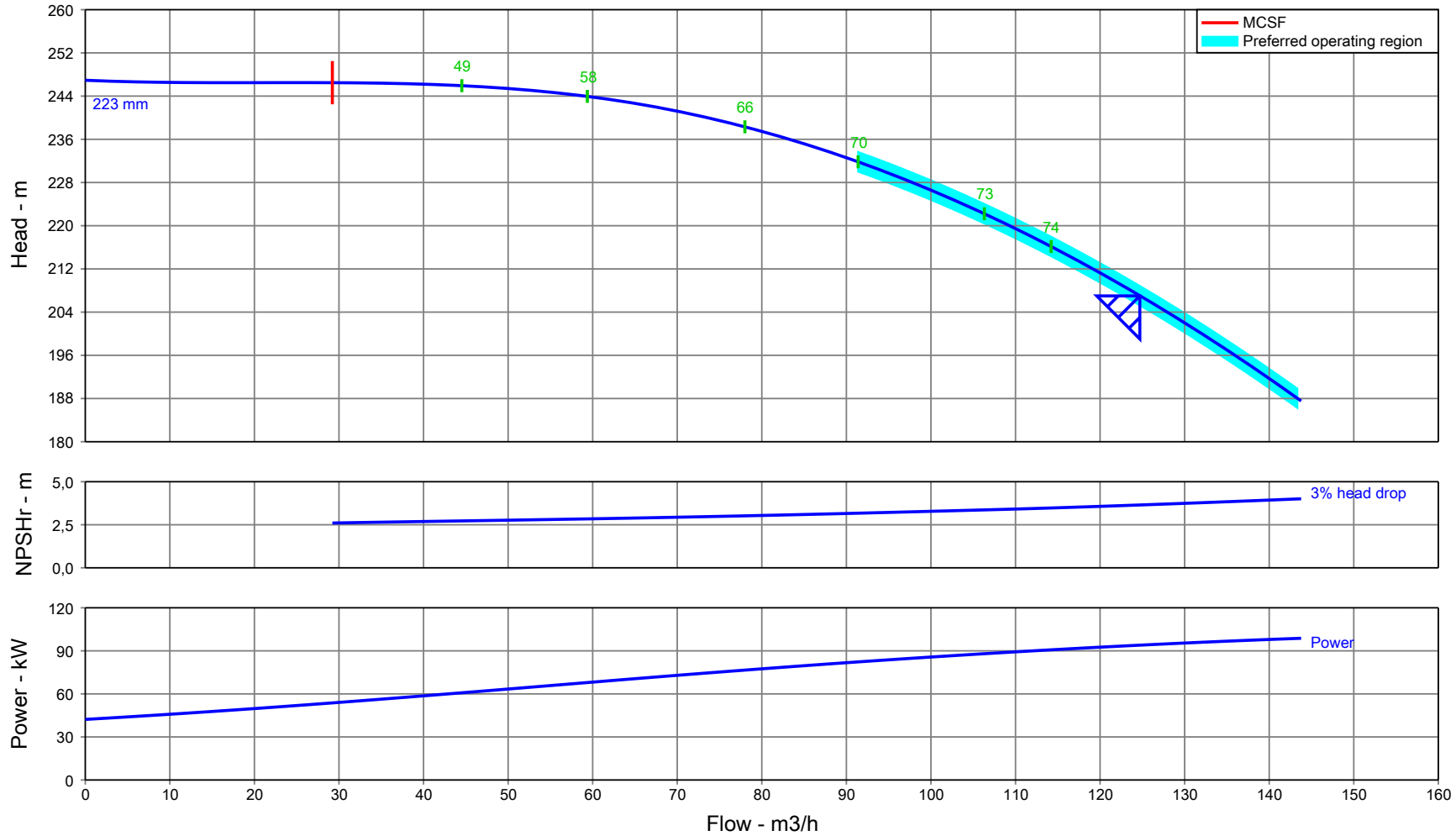
Pressure Data	
Maximum casing/bowl working pressure	: 25,17 bar.g
Maximum allowable working pressure	: 40,00 bar.g
Maximum allowable suction pressure	: 10,00 bar.g
Hydrostatic test pressure	: 60,00 bar.g

Driver & Power Data (@Max density)	
Driver sizing specification	: Rated power
Margin over specification	: 10,00 %
Service factor	: 1,00
Power, hydraulic	: 70,21 kW
Power, rated	: 93,96 kW
Power, maximum, rated diameter	: 98,75 kW
Minimum recommended motor rating	: 110 kW / 148 hp

Hydraulic Performance Acceptance Test: ISO 9906:2012 / HI 14.6-2011 Grade 2B



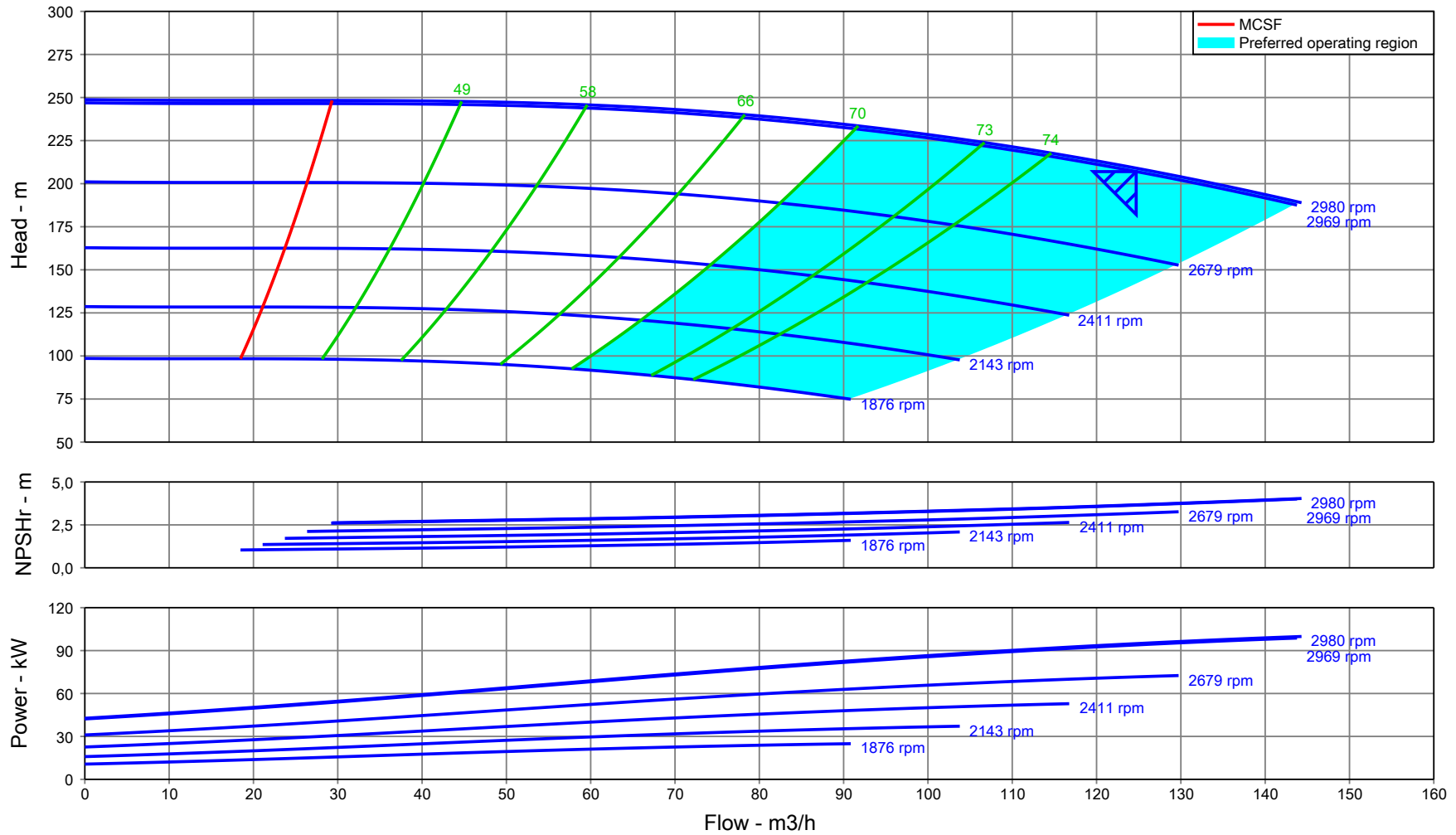
Pump Performance Curve



Hydraulic Performance Acceptance Test: ISO 9906:2012 / HI 14.6-2011 Grade 2B

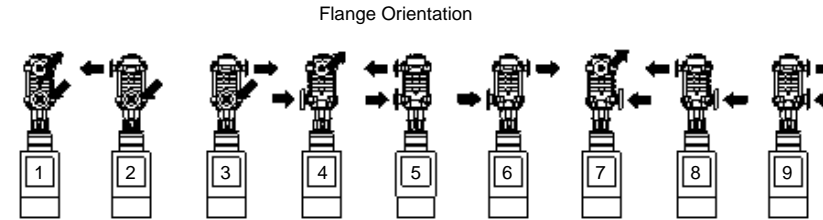
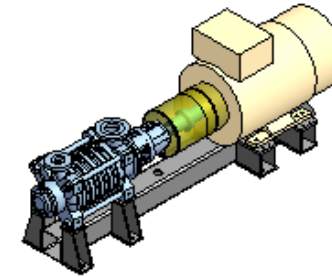
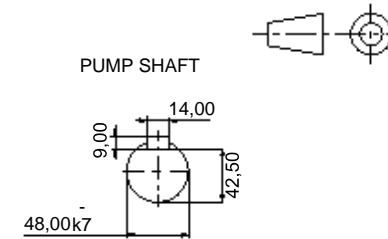
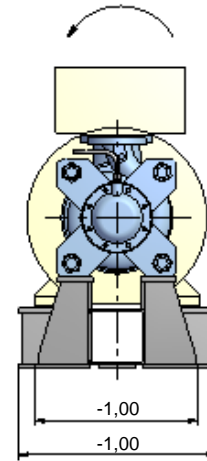
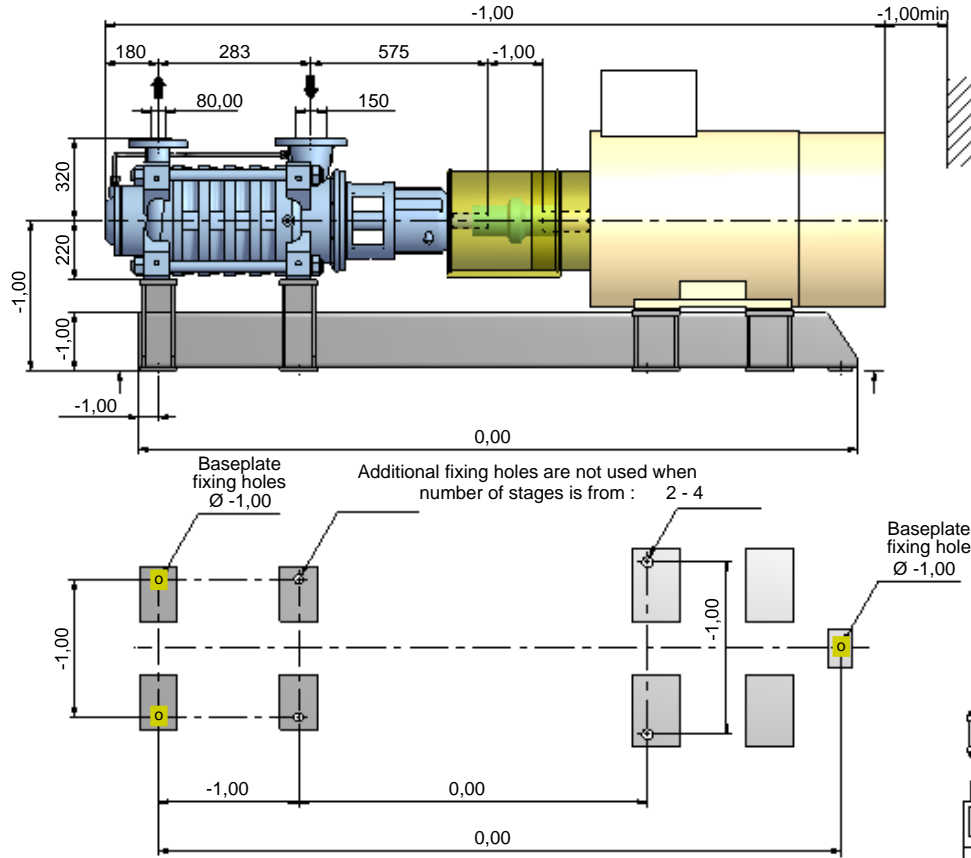
Customer	: AMV Chemie Technologie GmbH	Type / Size	: MBN80-255	Flow, rated	: 124,7 m ³ /h
Customer reference	: 2022078	Stages	: 3	Differential head / pressure, rated	: 207,0 m
Item number	: 2-P-9306A~C	Speed, rated	: 2969 rpm	Liquid type	: Water
Service	: RO1 High Pressure Pump	Based on curve number	: K06961 Rev 1	Additional liquid description	:
Quantity	: 3	Efficiency	: 74,72 %	Temperature, rated / max	: 20,00 / 20,00 deg C
Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0	Power, rated	: 93,96 kW	Fluid density, rated / max	: 0,998 / 0,998 kg/dm ³
Date of Last Update	: 09 Mar 2023 16:00	NPSH (3% head drop)	: 3,65 m	Viscosity, rated	: 1,00 cSt
				Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00

Multi-Speed Performance Curve



Customer	: AMV Chemie Technologie GmbH	Stages	: 3	Nominal speed	: 2982 rpm
Customer reference	: 2022078	Based on curve number	: K06961 Rev 1	Flow, rated	: 124,7 m ³ /h
Item number	: 2-P-9306A~C	Efficiency	: 74,72 %	Differential head / pressure, rated	: 207,0 m
Service	: RO1 High Pressure Pump	Power, rated	: 93,96 kW	Speed, rated	: 2969 rpm
Quantity	: 3	NPSH (3% head drop)	: 3,65 m	Impeller diameter, rated	: 223 mm
Sulzer Reference ID	: IRQ.2191-SZG.22.2191-B0	Site Supply Frequency	: 50 Hz	Fluid density, rated / max	: 0,998 / 0,998 kg/dm ³
Date of Last Update	: 09 Mar 2023 16:00			Viscosity, rated	: 1,00 cSt
Type / Size	: MBN80-255			Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1,00 / 1,00 / 1,00 / 1,00

Dimensions in mm - NOTE: DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED



MOTOR INFORMATION

Power	110 kW
Frame size	315S
Synchronous speed	3000 rpm
Voltage	400 VD
Frequency	VSD
Enclosure	-

PUMP INFORMATION

Rated speed	2969rpm
Pump Size	MBN80-255
No. of Stages	3

WEIGHTS

Pump	463,0 kg
Baseplate	464,0 kg
Motor	940,0 kg
TOTAL	1.867,0 kg

FLANGES

	Size	Drilling
Suction Flange	150	EN_PN10
Discharge Flange	80,00	EN_PN40

TENDER SUMMARY

Sulzer Reference ID	IRQ.2191-SZG.22.2191-B0
Project name	
Customer	AMV Chemie Technologie GmbH
Customer reference	2022078
Item number	2-P-9306A~C
Date Last Saved	2023-03-09 14:53:28
Service	RO1 High Pressure Pump

