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|--|--------------------------------------|
| PLANT: Impianto | CUSTOMER: Novamont Cliente |
| LOCATION: Porto Torres (SS) Località | JOB: T 1146 Commessa |
| P&I: P-01-GPID-001 Sh.4 | MFR: Fornitori |

| | |
|------------------------|---------------|
| ITEM: Sigla | P 2109 |
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Mod. 175c
DEPARTMENT: P01-AREA 2100
Reparto

SERVICE R2103 pump
Servizio

No. of UNITS 1
No. Di UNITA'

| | | | | |
|--|------------------------|---------------------------|---------------------------------------|---------------------------------------|
| WEIGHTS: PUMP Kg PESI: POMPA | BASE Kg BASE | MOTOR Kg MOTORE | REDUCTION GEAR Kg RIDUTTORE | TOTAL WEIGHT Kg PESO TOTALE |
|--|------------------------|---------------------------|---------------------------------------|---------------------------------------|

| OPERATING CONDITIONS EACH PUMP CONDIZIONI OPERATIVE | | | | PERFORMANCE Prestazioni | |
|---|--|---|--|----------------------------|--|
| FLUID Hydroxylated oil Fluido | FLOW NORM / RATED 5 m ³ /h Portata normale/richiesta | SET PRESS. SAFETY VALVE (1) bar Taratura valvola sicurezza | | | |
| SOLIDS No Solidi | DISCHARGE PRESSURE 2,9 bar Pressione di mandata | NPSH REQUIRED (1) m NPSH richiesto | | | |
| CORROSIVE COMPOUNDS 1% H ₂ O ₂ Composti corrosivi | SUCTION PRESSURE MAX/RATED 0,5 bar Pressione aspirazione max/richiesta | RPM RATED (1) RPM richiesto | | | |
| TEMPERATURE NORM/MAX 62 °C Temperatura | DIFFERENTIAL PRESSURE 2,4 bar Pressione differenziale | EFFICIENCY % Rendimento | | | |
| VISCOSITY AT P.T. 500 cP Viscosità | DIFF. HEAD 25 m Prevalenza | MAX POWER RATED (1) KW Potenza max richiesta | | | |
| DENSITY AT P.T. 966 Kg/m ³ Densità | NPSH AVAILABLE >= 5 m NPSH disponibile | RPM MIN / MAX | | | |
| VAPOUR PRESSURE / bar Tensione di vapore | INSTALLATION INDOOR <input checked="" type="checkbox"/> OUTDOOR <input type="checkbox"/> Installazione Chiuso Aperto | FLOW MIN/MAX m ³ /h Portata | | | |
| FREEZING TEMPERATURE / °C Temperatura di congelamento | | ROTATION (FROM COUPLING END) (1) Rotazione (vista dal giunto) | | | |
| | | MAX ALLOWABLE PRESSURE 6 barg Pressione massima ammessa | | | |
| | | HYDROSTATIC TEST barg Prova a pressione idrostatica | | | |
| | | MAX ALLOWABLE TEMPERATURE 110 °C Temperatura max ammessa | | | |

| CONSTRUCTION DATA DATI COSTRUTTIVI | | | |
|---|--|--|--|
| PUMP INSTALLATION HORIZONTAL <input checked="" type="checkbox"/> FOOT <input checked="" type="checkbox"/> BRACKET <input type="checkbox"/> VERTICAL <input type="checkbox"/> Montaggio pompa Orizzontale Foot Bracket Verticale | | | |
| JACKETS (4) ANT. SIDE <input type="checkbox"/> PUMP BODY <input type="checkbox"/> VALVES <input type="checkbox"/> Garniture Lato ant. Corpo pompa Valvole | | | |
| CASING MIN. THICKNESS mm Spessore minimo cassa | | | |
| TYPE OF PUMPING ELEMENTS Organo pompante tipo | | | |
| RPM ADJUSTMENT TYPE % AUTOMATIC <input type="checkbox"/> MANUAL <input type="checkbox"/> Variazione giri Automatico Manuale | | | |
| SUCTION FLANGE Ø mm (1) RATING PN 16 FACING RF LOCATION (1) Flangia aspirazione Rating Accopp. Posizione | | | |
| DISCHARGE FLANGE Ø mm (1) RATING PN 16 FACING RF LOCATION (1) Flangia mandata Rating Accopp. Posizione | | | |
| BEARINGS TYPE Cuscinetti tipo | | | |
| LUBRICATION TYPE Lubrificazione tipo | LUBRICANT TYPE Lubrificante tipo | | |
| COUPLING TYPE Giunto tipo | | | |
| BASE PLATE Basamento | | | |
| PACKING TYPE Premistoppa tipo | | | |
| MECHANICAL SEAL TYPE single or double (5) MATERIAL Tenuta meccanica tipo Materiale | | | |
| MECHANICAL SEAL MFR Costruttore tenuta meccanica | | | |
| SAFETY VALVE YES <input type="checkbox"/> NO <input type="checkbox"/> Valvola di sicurezza Sì No | | | |
| STEAM TRACING (To make in site) Tracciatura (da eseguire al montaggio) | FLUID Fluido | | |
| INSULATION yes THICKNESS mm SURF SLEIGHT Isolamento Spessore mm Superficie Slight | | | |

| REDUCTION GEAR RIDUTTORE | | | |
|-----------------------------|--|--|--|
| TYPE (1) | | | |
| RED. RATIO (1) | | | |
| SERVICE RATING (1) | | | |
| MANUFACTURER (1) | | | |
| LUBRICATION (1) | | | |
| LUBRICANT TYPE (1) | | | |

| SHOP TEST DATI SHOP | | | |
|---|--|--|--|
| PERFORMANCE WITN <input type="checkbox"/> NON WIT <input type="checkbox"/> Caratteristiche Presenz. Non pres. | | | |
| NPSH <input type="checkbox"/> | | | |
| HYDROSTATIC PRESSURE <input type="checkbox"/> | | | |
| DISMANTLING AFTER TEST <input type="checkbox"/> | | | |

| MATERIALS MATERIE | | MOTOR DRIVER DI COMANDO | | FINAL DATA DATI FINALI | |
|----------------------------|---------------------------------------|------------------------------|--|---------------------------|--|
| CASING (3) | POWER KW (1) | SECTIONAL DWG N° | | | |
| PUMPING ELEMENT (3) | RPM (1) | OUTLINE DWG N° | | | |
| INNER CASE PART (1) | No of POLES (1) | SEAL DWG N° | | | |
| FOLLOWER (1) | SHAFT (1) | SAFETY VALVE DRW N° | | | |
| SAFETY VALVE (3) | ENCLOSURE IP55 | REDUCTION GEAR DRW N° | | | |
| GASKETS (3) | EXECUTION (1) | INSPECTION REPORT N° | | | |
| BEARING HOUSING (3) | VOLTS PHASES/CYCLES 400/3/50 | | | | |
| BASE PLATE (3) | MANUFACTURER (1) | | | | |
| | TYPE (1) | | | | |
| | FULL LOAD AMPS (1) | | | | |
| | EFFICIENCY IE2 (high eff.) (2) | | | | |

| AUXILIARY PIPING TUBAZIONI AUSILIARIE | | | | | |
|--|--|---|--|---------------------------------------|--|
| COOLING WATER P Barg °C | BEARINGS <input type="checkbox"/> | STUFFING BOX JACKET <input type="checkbox"/> | PEDESTAL <input type="checkbox"/> | GLAND <input type="checkbox"/> | |
| TOTAL FLOW m ³ /h Portata | PLAN | | | | |
| | Schema | | | | |

| | | |
|--|--|---------------|
| FLUSHING LIQUID P Barg °C | FLOW m ³ /h Portata | PLAN |
| JACKET FLUID hot water P Barg °C 95 | HYDRAULIC TEST Barg | PLAN |
| | Schema | Schema |

CODE REQUIREMENTS
Norme

REMARKS
Note

(1) To be defined by vendor (4) Vendor shall make two quotations (one with jacket and one without)

(2) Electric motor suitable for operation with inverter (5) To be defined by vendor in according to the fluid type

(3) Material in contact with process fluid: AISI 316L or PTFE

| REV. | DATE | DESCRIPTION | FILLED OUT | CHECKED | APPR. BY |
|------|------------|---|--------------|----------------|--------------|
| Rev. | Data | Descrizione | Compilato da | Controllato da | Approvato da |
| 2 | | | | | |
| 1 | 11/04/2011 | Revision due to the new hydroxylation reactor | SV | WR | CP |
| 0 | 13/10/2010 | First Issue | SV | WR | CP |