

6 MW SYNCHRONOUS MOTOR

DESCRIPTION

NEVER USED, NEVER ASSEMBLED – WEG EQUIPAMENTOS ELETRICOS S.A. 6,000 kW (8,043 HP) Synchronous Motor



I.D.	17C-107
OEM	WEG
MODEL	SEW 128
YOM	FEB 2017
S/N	1034421201
Location	Indoor Warehouse Guyana
Condition	NEVER USED
Packaging	Original Packaging

PRIMARY	SPECIFICATIONS
EXCITATION TYPE	Brushless
kW	6000
S.F.	1.00
Phase / Hz.	3 / 56.67
RPM	850
VOLTS	3300
PROTECTION	IP56
NOISE	85 dB (A)
Rotation Facing Shaft End	Bi-Directional



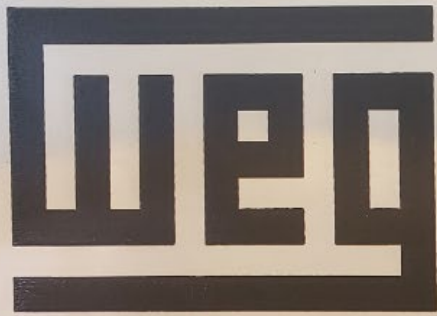
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Pre-Owned Mining, Processing & Construction Equipment Since 1979

6 MW SYNCHRONOUS MOTOR

NAME-PLATE



NEMA

WEG EQUIPAMENTOS ELÉTRICOS S.A.

AVENIDA PREFEITO WALDEMAR GRUBBA, 3000

89256-900 - JARAGUÁ DO SUL - SC

CNPJ - 07.175.725/0010-50

INDÚSTRIA BRASILEIRA

10402630

SYNCHRONOUS MOTOR

EXCITATION: ☒ BRUSHLESS ☐ SLIP RINGS

MOD	SEW 128	Serial number 1034421201			Date	02 17	Noise	85dB(A)	Cooling	IC81W
kW	6000	STATOR			Nr Phases	3	D.E. BEARING	ZMZLB 22-250		
S.F.	1.00	V	3300	A 1077	CONN.	Y	COS Φ	1.00	Lubricant	ISO VG68
Ip/In	-	V		A	CONN.		AMB	40°C	N.D.E.BEARING	ZMZLQ 22-250
rpm	850	V		A	CONN.		ALT	1005m	Lubricant	ISO VG68
Hz	56.67				Δt	CLASS B	Rotation facing shaft end			
DUTY	S1	EFFICIENCY (%)			IP	56	Clockwise			
INSUL.	F	97.5	100%	97.4	75%	MASS	19.80 ton	Counter-clockwise		
						MASS	43640 lb	Bidirectional		X



ATTENTION

READ CAREFULLY THE INSTRUCTIONS ON THE INSTALLATION AND
MAINTENANCE MANUAL TO ENSURE A SAFE AND CONTINUOUS OPERATION



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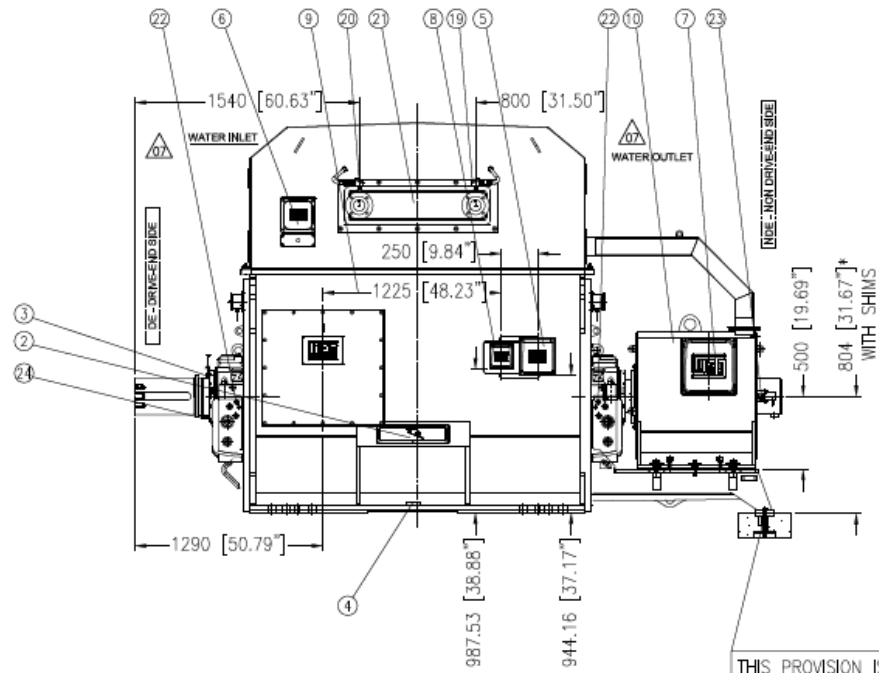
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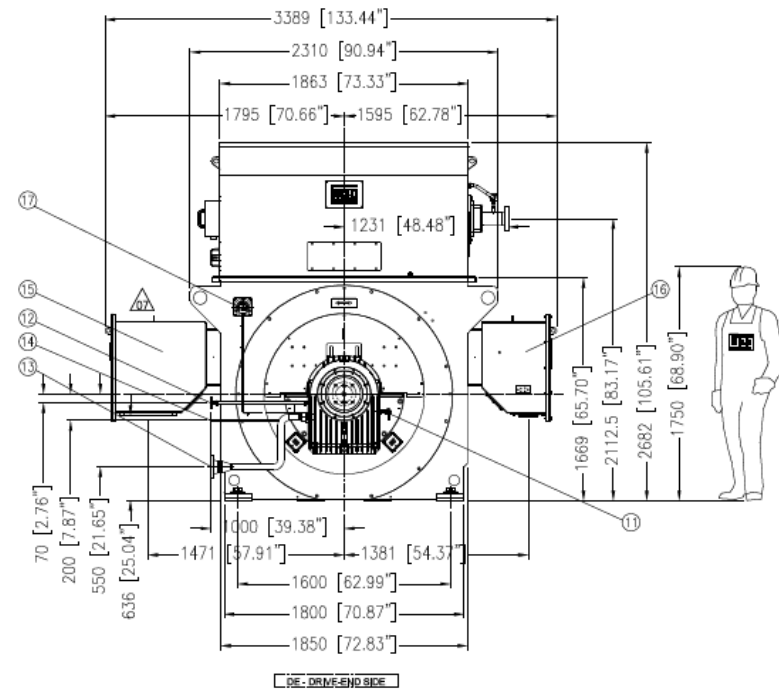
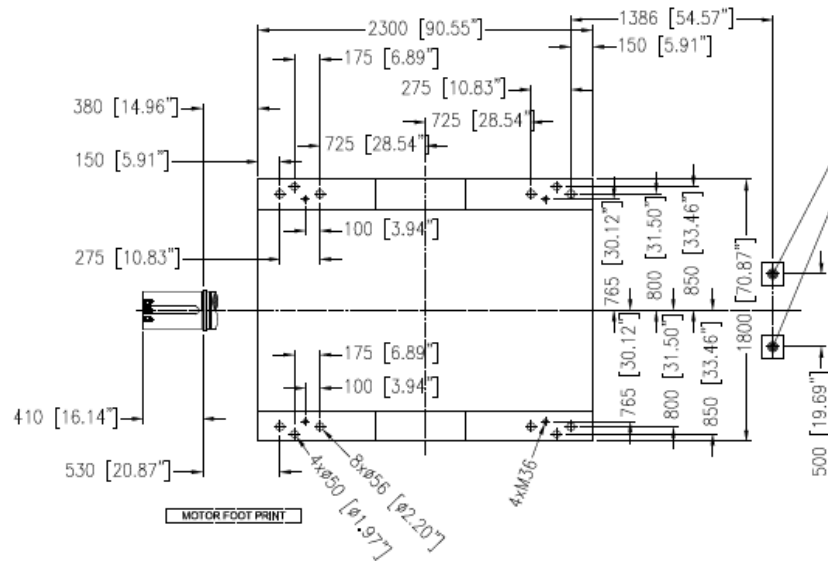


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6 MW SYNCHRONOUS MOTOR DRAWING



THIS PROVISION IS NECESSARY FOR EXCITER COMPARTMENT SUPPORT, PLEASE CHECK AVAILABLE ROOM AND HEIGHT.

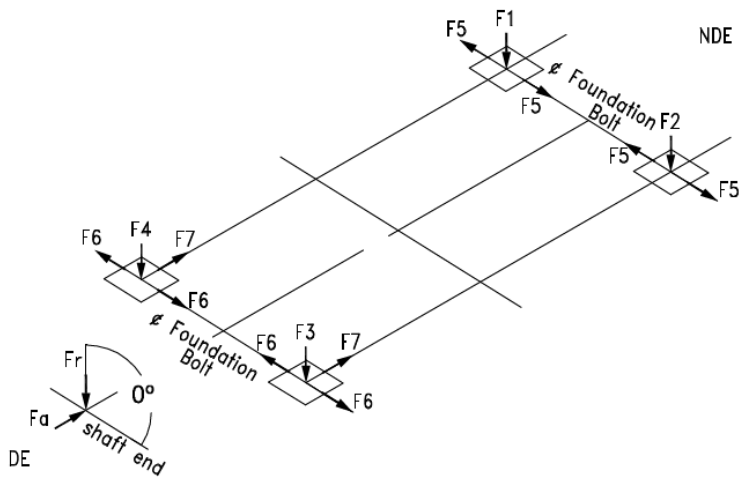


24	MAGNETIC CENTER GAUGE (AXIAL ENDPLAY: 12mm ±6mm)
23	ENCODER - HS35B - DYNAPAR
22	NIPPLE FOR SPM (1/BEARING - M8 SIZE)
21	HEAT EXCHANGER
20	PL-100 - WATER INLET
19	PL-100 - WATER OUTLET
18	WATER LEAKAGE DETECTOR
17	THERMOMETER WITHOUT ELECTRIC CONTACT (1/BEARING)
16	NEUTRAL TERMINAL BOX (BLANK GLAND PLATE)
15	MAIN TERMINAL BOX (BLANK GLAND PLATE)
14	JACKING OIL INLET (3/8 BSP)
13	OIL OUTLET (JIS 10K-65A)
12	OIL INLET (JIS 10K-15A)
11	PL-100 - BEARING (6 WIRES - 2/BEARING)
10	EXCITER COMPARTMENT
9	PL-100 - STATOR WINDING (3 WIRES - 2/PHASE) - INSIDE FRAME
8	AUXILIARY BOX 4 - SPACE HEATERS (1xM25x1.5)
7	AUXILIARY BOX 3 - EXCITER (1xM25x1.5)
6	AUXILIARY BOX 2 - RTD WATER, LEAKAGE DETECTOR (1xM25x1.5)
5	AUXILIARY BOX 1 - RTD STATOR AND BEARING (2xM25x1.5)
4	GENERATOR GROUNDING
3	SHAFT GROUNDING BRUSH - D.E. SIDE (QTY 1)
2	SPACE HEATER MAIN FRAME (950W)
1	GUIDE PIVOT
Pos.	ACCESSORIES/INSTRUMENTATION



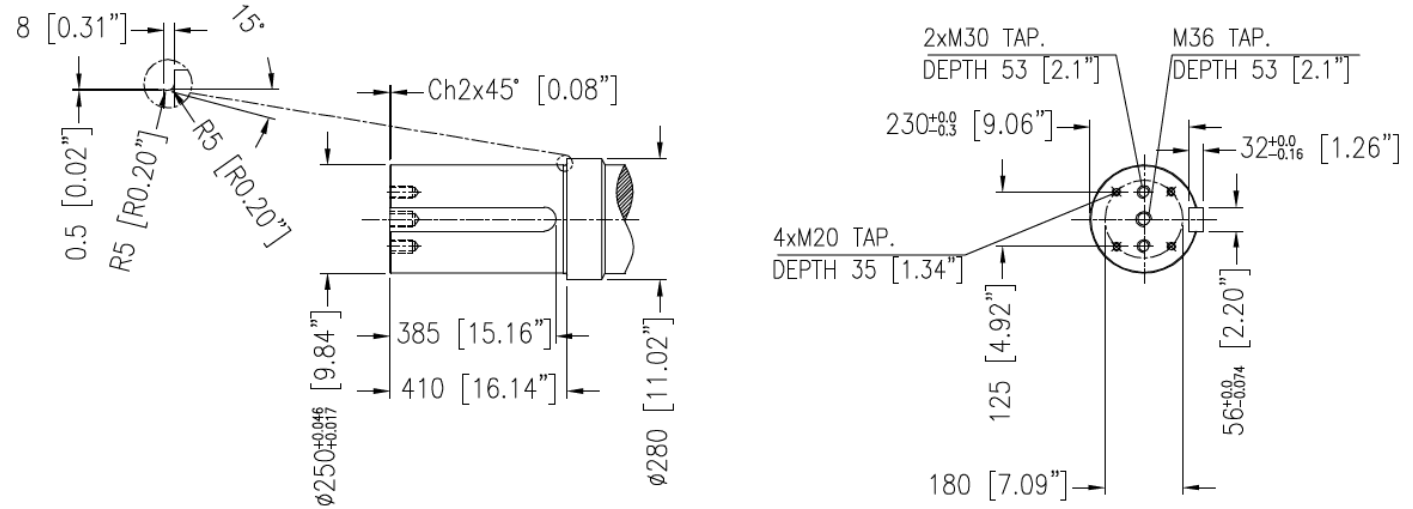
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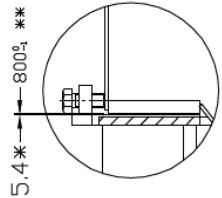


Foundation loads at rated load	F1 (kN)	F2 (kN)	F3 (kN)	F4 (kN)	F5 (kN)	F6 (kN)	F7 (kN)
Static forces	53.9	53.9	53.9	53.9	0.0	0.0	0.0
Dynamic forces at rated load	±14	±14	±14	±14			
Turbine load	0.0	0.0	0.0	0.0			
Foundation loads in case of fault							
Dynamic alternating forces at three phase short circuit	±68.8	±68.8	±68.8	±68.8			
Dynamic alternating forces at phase to phase short circuit	±95	±95	±95	±95			
Dynamic alternating forces at synchronizing out-of-phase (120°)	±112.5	±112.5	±112.5	±112.5			
* Fa, Fr E α INFORMED BY CUSTOMER							

DETAIL OF SHAFT DRIVE END

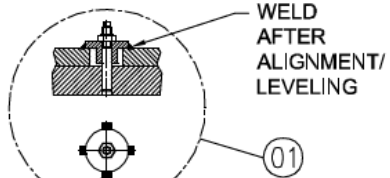


GENERATOR CENTER HEIGHT



** - Generator center height: measured from generator center line up to machined base frame
* - Maximum height considered on design for shims is 5,4mm. The use of shims is always required.

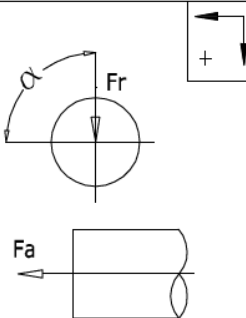
DETAIL OF THE MACHINE PINNING



WELD IN 4 POINTS AT 90°

CONDITION OF THE SHAFT END

	Rot.(rpm)	Duration (s)	Fr (KN)	Angle	+ Fa (KN) -	
Start-up	0	20	-	90	-	-
NomInal	850	Continuo	-	90	-	-
Over speed	1377	120	-	90	-	-



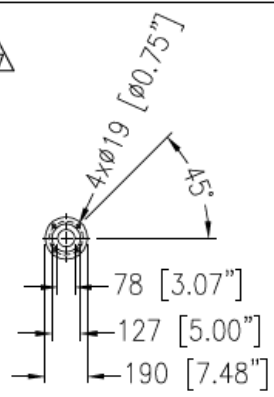


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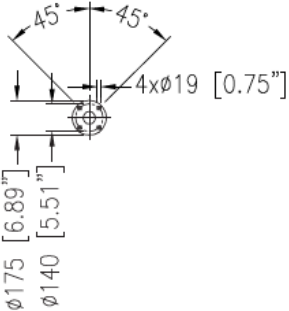
DRAWING

6 MW SYNCHRONOUS MOTOR

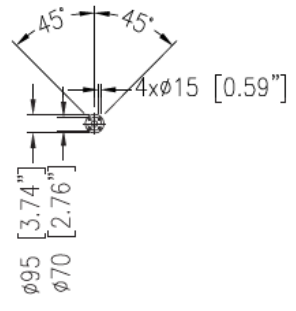
07



WATER INLET / OUTLET FLANGE
(3" ANSI B16.5 150lb)

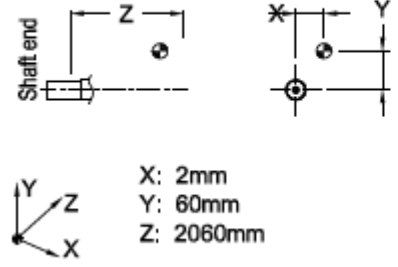


OIL OUTLET FLANGE
(JIS 10K-65A)



OIL INLET FLANGE
(JIS 10K-15A)

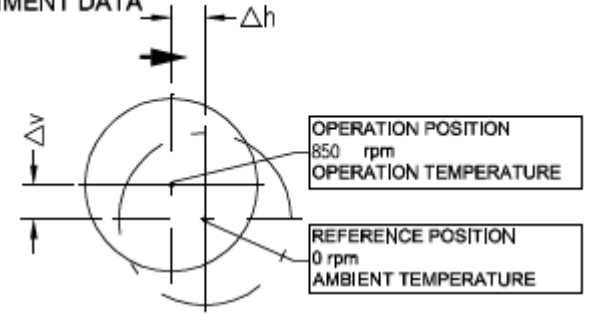
CENTER OF MASS POSITION



Mounting tolerance

Dimensions range (D)	Tolerance
$0 < D \leq 15,7$	$\pm 0,4$
$15,7 < D \leq 39,4$	$\pm 0,8$
$39,4 < D \leq 78,8$	$\pm 1,2$
$78,8 < D \leq 157,6$	$\pm 1,4$
$157,6 < D \leq 315,2$	$\pm 1,6$
Unit: In	

ALIGNMENT DATA



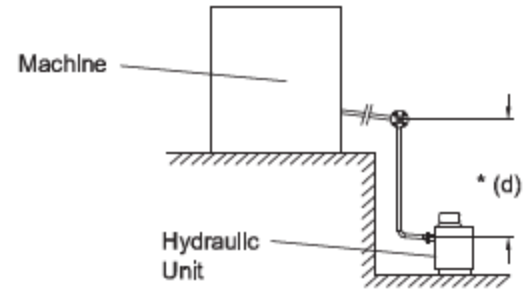
Δv	shaft vertical displacement	0.242mm
Δh	shaft horizontal displacement	-0.075mm

NOTE
Direction of displacement (Δv up and Δh left)
Looking from the D.E.
Considering CW direction

SLEEVE BEARING DATA

Bearing DE ZMZLB 22-250	Oil flow:: 5.6 l/min Oil quantity: 30 liters Losses: 2,4 kW Weight: 445 kg
Bearing NDE ZMZLQ 22-250	Oil flow:: 5.5 l/min Oil quantity: 30 liters Losses: 2,4 kW Weight: 445 kg
Oil for bearing lubrication: ISO VG-68	
Oil Inlet temperature: 40 °C	
Oil change Interval: 20000 hours	
Nominal oil Inlet pressure: 1 ±0,2 Bar	
Bearings with loose oil rings	
Both bearings are insulated	
Both bearings with jacking oil system installed	

ADVICE FOR POSITIONING OF THE HYDRAULIC UNIT



* Minimum allowed vertical drop
between oil outlet connection of the
machine and the hydraulic unit.

(d)	700	(mm)
-----	-----	------

JACKING OIL SYSTEM DATA (NOT WEG SCOPE OF SUPPLY)

Start condition				Shutdown condition			
The system must be turned on before start the machine and must be turned off only after the machine reach XXX rpm.				During deceleration of the machine, the system should be turned on when the rotation reach XXXX rpm, and off only after a full stop.			
Pressure at starting	DE	65	(bar)	Pressure at shutdown	DE	40	(bar)
	NDE	65	(bar)		NDE	40	(bar)
Flow at starting	*	0.8	(l/min)	Flow at shutdown	*	0.8	(l/min)

* Recommended oil flow per bearing



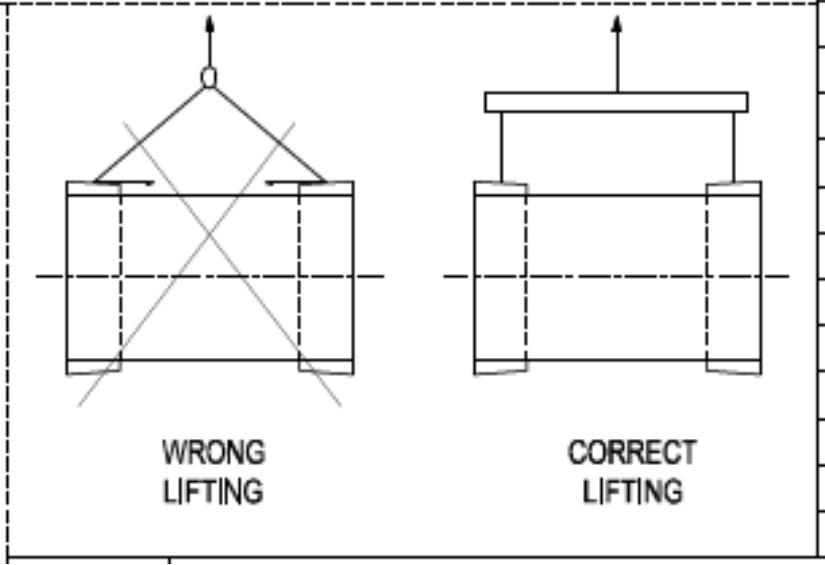
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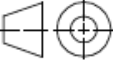
6 MW SYNCHRONOUS MOTOR DRAWING

NOTE
After generator assembly and complete alignment and before startup, check the eccentricity of the exciter air gap and, if necessary, correct using adjusting screws and shims,
ACTION
Measure the air gap of the main exciter by removing the split cover and through the holes on the fan.
CRITERIA
The measured air gap shall not be less than 70% of nominal air gap. Minimum air gap: 0.91 mm (main exciter)

Expo

Model: SEW128	
OV: 4105257/20	F.D.: 26653/16
Output: 6000 kW	
Rated Voltage: 3300 V	
Poles: 8	
Frequency: 56,67 Hz	
Construction type: F1	
Speed: 700 rpm to 850 rpm	
Overspeed: 1377 rpm	
Duty cycle: S1	
Power factor: 1	
Protection degree: IP56	
Insulation class: F	
Temperature rise: class B	
Direction of rotation: Both	
Axial endplay: 12mm (6mm each side)	
Both bearings are insulated	
Rotor Inertia (J): 15300 lb.ft2	
Approx. Rotor weight: 15430 lbs	
Approx. Stator core and frame weight: 19160 lbs	
Approx. complete motor weight: 45200 lbs	



	Representation of the machine is illustrative only. Some features may not be represented. For installation or maintenance, consult operation manual.			Protection: MG1 - Parte 1 IEC 60034-5 Dimension: MG1 - Parte 4 IEC 60072 Tolerance: MG1 - Parte 4 ISO 286 Key: MG1 - Parte 4 IEC 60072			Machined parts: ISO 2786 Weld Constr: ISO 8015 Castings: ISO 8062		
	GROVE MADSEN								
	GROSS WEIGHT		kg	NET WEIGHT		kg	SCALE		1:30
	500001281907		UPDATED MOTOR WEIGHT			CRODRIGO		MICHEL B	09.03.2017
500001276625		UPDATED MAIN TERMINAL BOX			CRODRIGO		RICARDO6	22.02.2017	07
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	LBOLZAN		DIMENSIONAL SEW128			10004269698			
CHECKED									
RELEASED	RAFAEL SOUZA								
REL DT	11.05.2016	WEN	JARAGUÁ DO SUL	ENGENHARIA DO PRODUTO	SHEET	1 / 1			