

(OEE)



S.G.S.Co.

OEE

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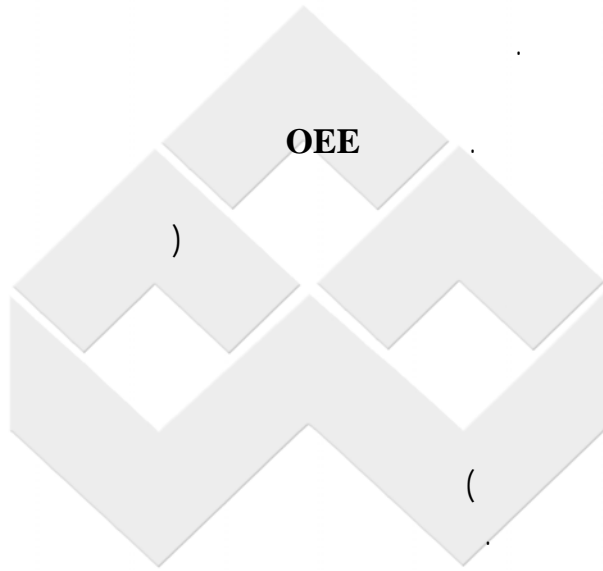
OEE

(TMP)

(OEE)

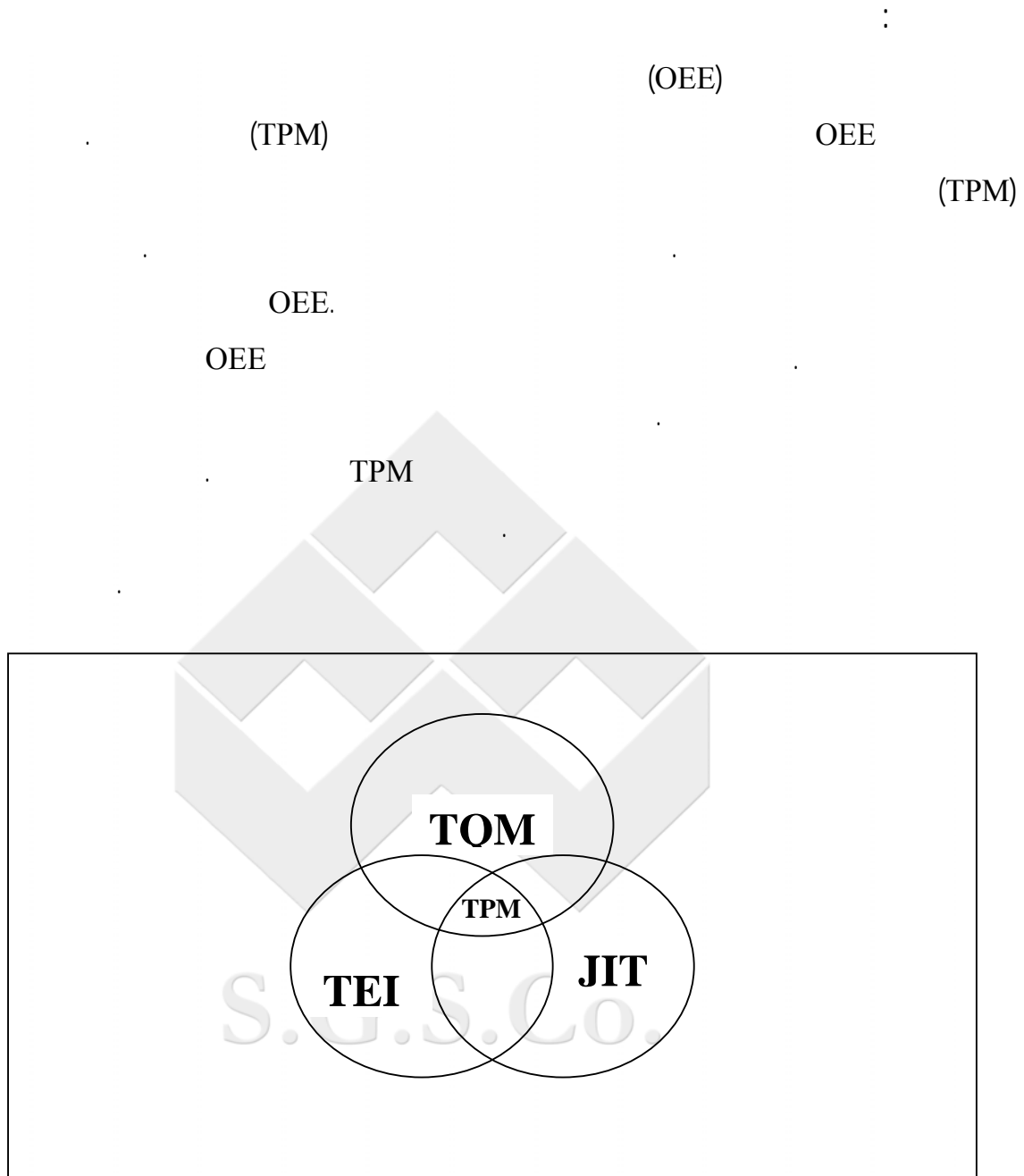
OEE

OEE



OEE

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1. Overall Equipment Effectiveness
- 2 . Seiichi Nakaiaama
- 3 . Nippon Denso
- 4 Total Productive Maintenance
- 5- SEMATECH
- 6- TQM: Total Quality Management
- 7- TEI: Total Employee Improvement
- 8- JIT: Just – In - Time

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$$= \times \times$$

(Availability)	

(Performance)	

(Quality)	

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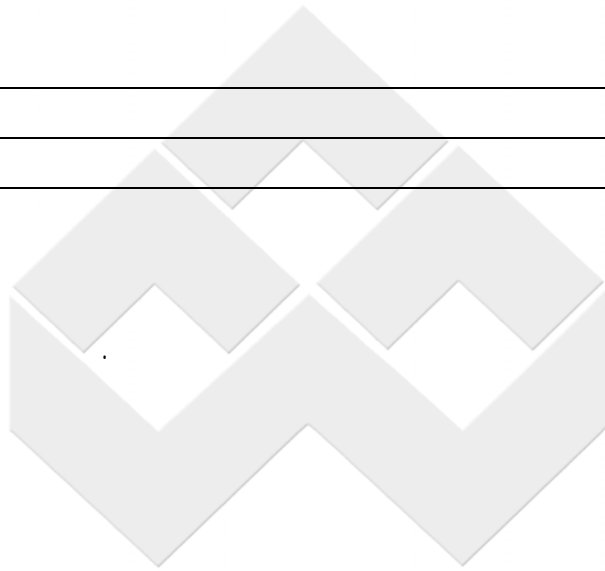
	(A)	
(Availability)	(B)	()
(Performance)	(C)	
	(D)	
(Quality)	(E)	
	(F)	
OEE = B/A * D/C * F/E		

(Availability)

OEE

Availability	_____
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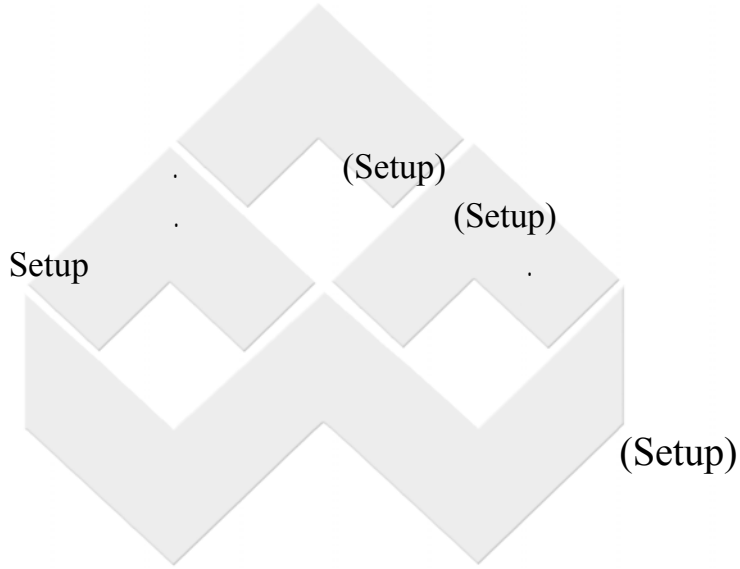
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S.G.S.Co.

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PM -
(Setup) -
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S.G.S.Co.

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(Availability)

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(Total Effective Equipment Performance) TEEP

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(Availability)

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Availability

Availability
Availability

S.G.S.Co.

Performance

Availability

Availability

Availability

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(Availability)

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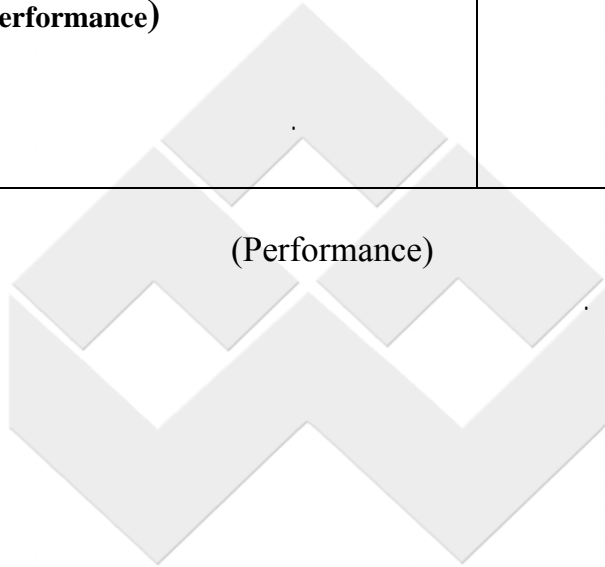
(Performance)

(-)

(Performance)	_____
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(Performance)

(Availability)



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(Performance)

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	(Performance)	
Z Y X	C B A	
	:	
	X A	: X1
	Y B	: Y1
	Z C	: Z1
	X A	: t1
	Y B	: t2
	Z C	: t3
(Performance) =	$\frac{X1.t1+Y1.t2+Z1.t3}{X1.t1+Y1.t2+Z1.t3}$	

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(Quality)

(+ +)

(Quality)	
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(Quality) (Setup) %

S.G.S.Co. (Quality)

(Quality)

(Quality)

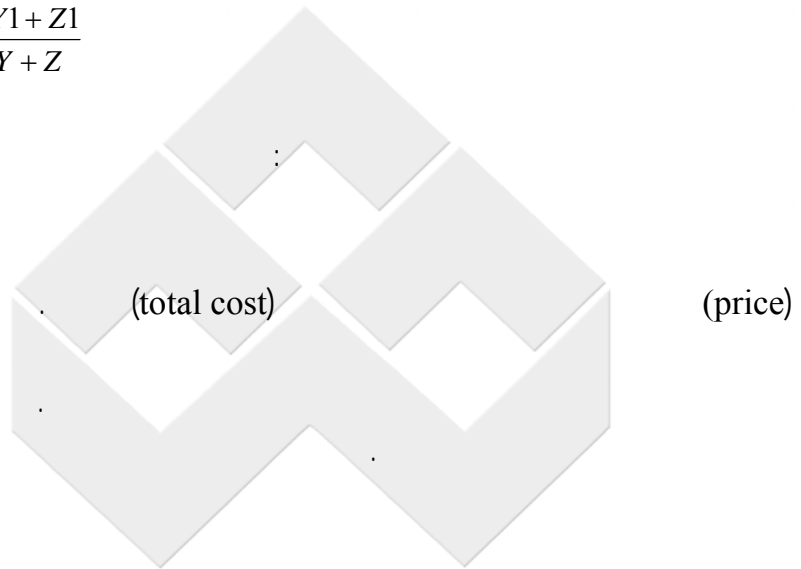
$$Quality = \frac{2000 - 100 - 250}{2000} = 82.5\%$$

(Quality)
(Quality)

$$Quality = \frac{2000 - 100/500 * 2000}{2000} = 80\%$$

	(Quality)	
C	B	A
	A	= X
	B	= Y
	C	= Z
A		= X1
B		= Y1
C		= Z1

$$(Quality) = \frac{X1+Y1+Z1}{X+Y+Z}$$



"

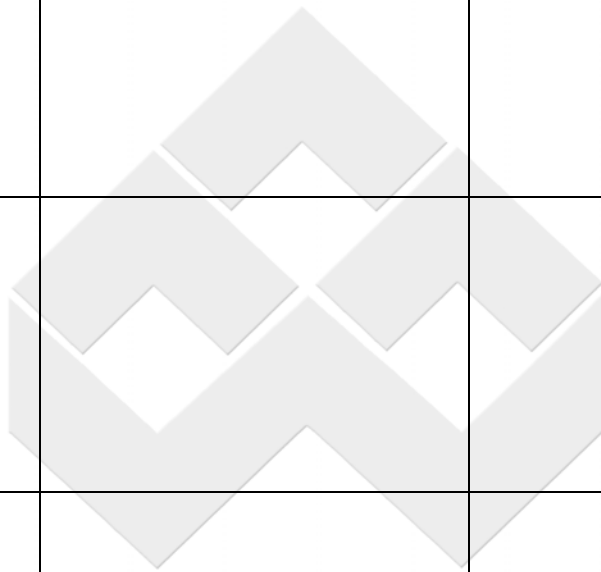
OEE TPM

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"OEE"

		OEE		



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A

OEE

$$\times = \frac{(\quad)}{\quad}$$

Avalability : $(\quad) / \quad = \%$

$$\times = \frac{(\quad)}{\quad}$$

= (\quad)

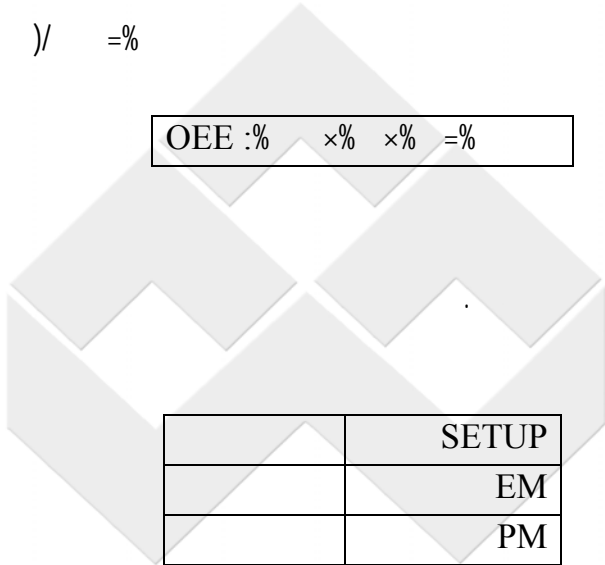
Performance: $(\quad \times) = \%$

Quality: $(\quad) / \quad = \%$

OEE :%	×%	×%	=%
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A OEE



	SETUP
	EM
	PM

S.G.S.Co.

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$$\times = ()$$

$$+ + + = ()$$

$$= ()$$

Availability : () / =%

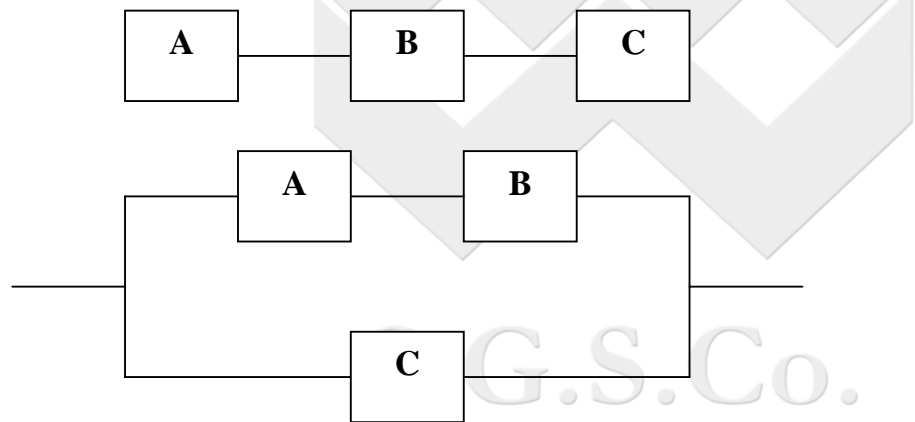
$$\times = ()$$

Performance: / () =%

Quality : () / =%

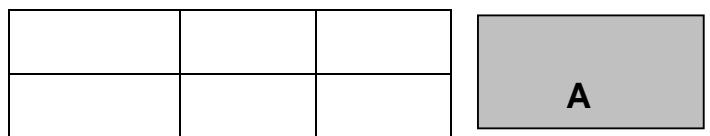
OEE : % ×% ×% =%

OEE



C B A

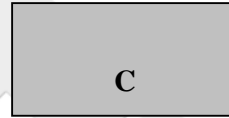
OEE



()	
80	A
100	B
150	C







$$AValability = \frac{(1440 * 3) - (80 + 100 + 150)}{1440 * 3} = \frac{3990}{4320} = 92\%$$

$$Performance = \frac{(110 * 10) + (160 * 7) + (225 * 5)}{3990} = \frac{3345}{3990} = 84\%$$

$$Quality = \frac{102 + 145 + 203}{160 + 225 + 110} = \frac{450}{495} = 91\%$$

$$OEE = 0.92 * 0.84 * 0.91 = 70\%$$

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S.G.S.Co.

OEE

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OEE

$$OEE\% = \times \times \times$$

OEE

$$OEE /$$

OEE

OEE

OEE	OEE
	90.0%
	95.0%
	99.9%
OEE	85.0%

S.G.S.Co.

OEE

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OEE

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