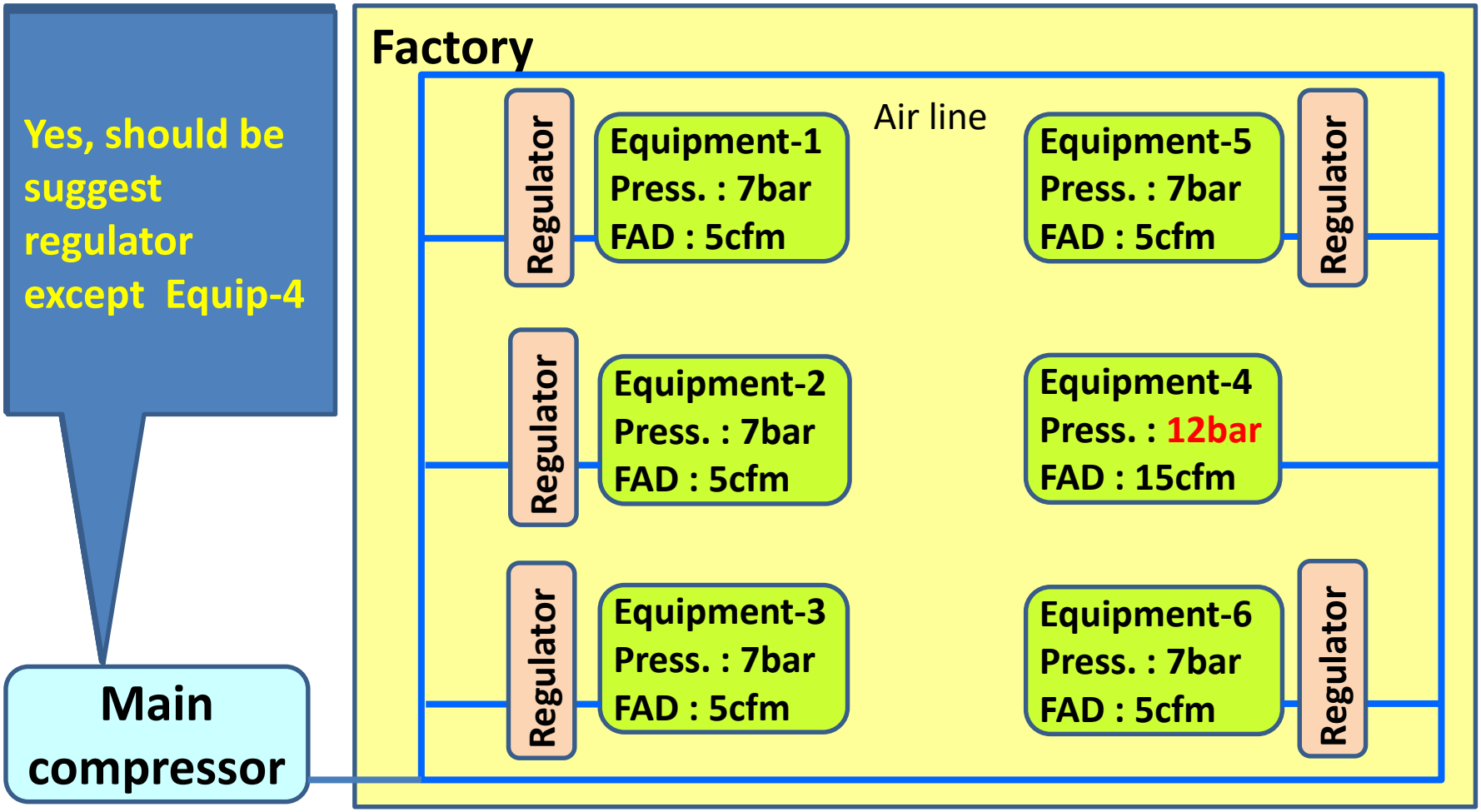
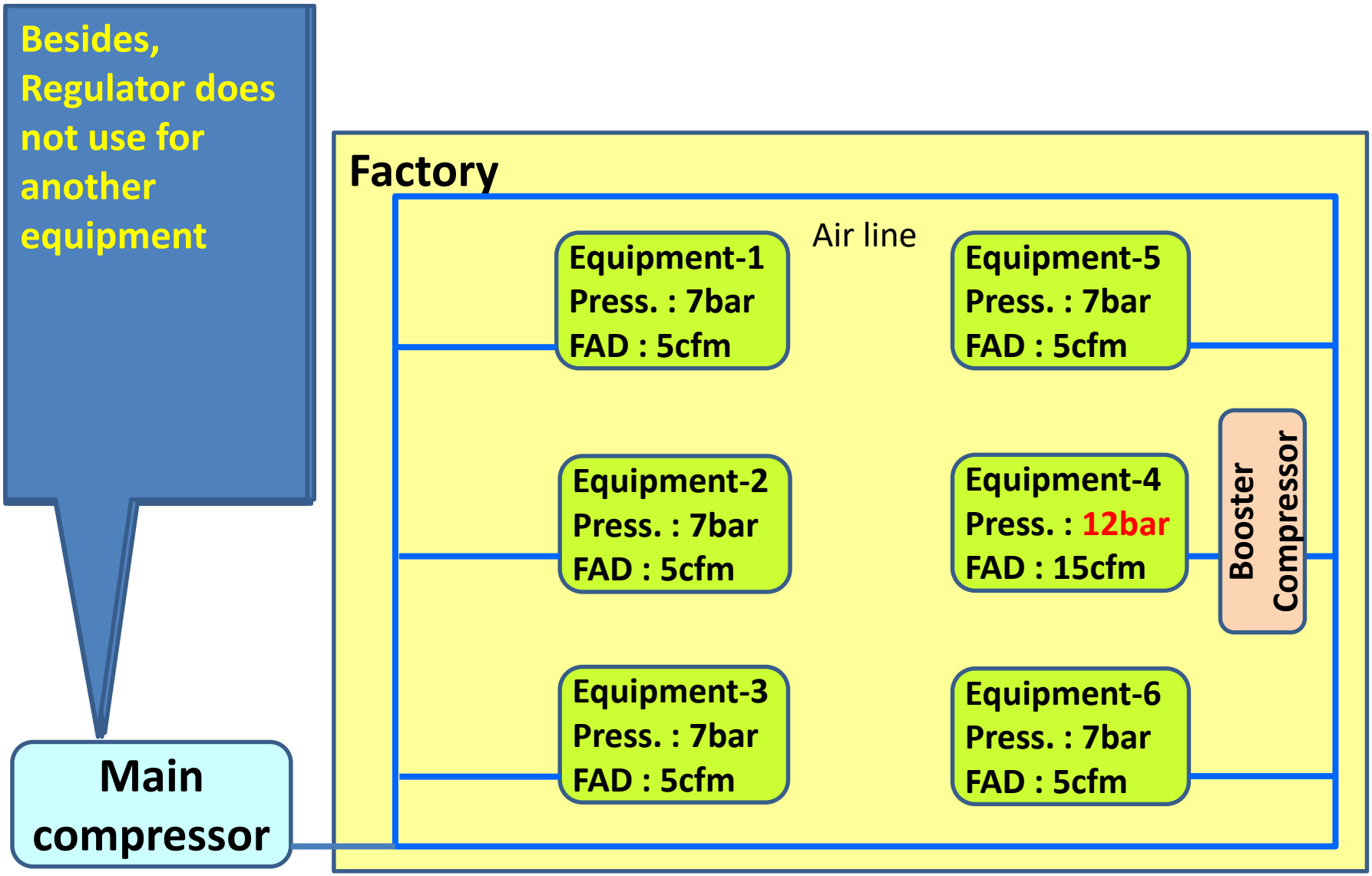
Booster compressor (Basic)

1st: 30.01.2018

Booster is ….
It is to amplify the current power.
(Equipment support)



But if you suggest Booster comp.....



Booster compressor good and negative point

<Good>

1. Increase main compressor life or reduce compressor purchase cost for reduce exhaust pressure.
Ex: From 10bar model to 7bar model and no required accessory parts in this case.

2. Reduce energy consumption
If booster does not use, it is just turn off comp.

3. Less noise and vibration
   Compressor : from 55 to 63dB
   Regulator : from 73 to 63dB (reference of SMC)

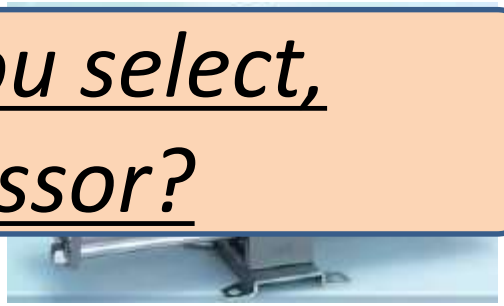
<Negative>

1. Increase maintenance numbers
2. Add installation area
3. Add maintenance cost (but reduce working ratio, so extend maintenanse time)

Boost method

1. Regulator ---SMC
   Boost air is made by comp air.
   2 times Input air volume at exhaust air
   ex. If you require exhaust air 10cfm, input air require 20cfm
2. Compressor --- Comp. maker
   Boost air is made by compressor
   10% more Input air volume at exhaust air
   ex. If you require exhaust air 10cfm, input air require 11cfm

Which Boost method do you select, Regulator and Compressor?



Noise	O	X	
Vibration	O	X	
Life	O	X	Note1
Maintenace cost	X	O	

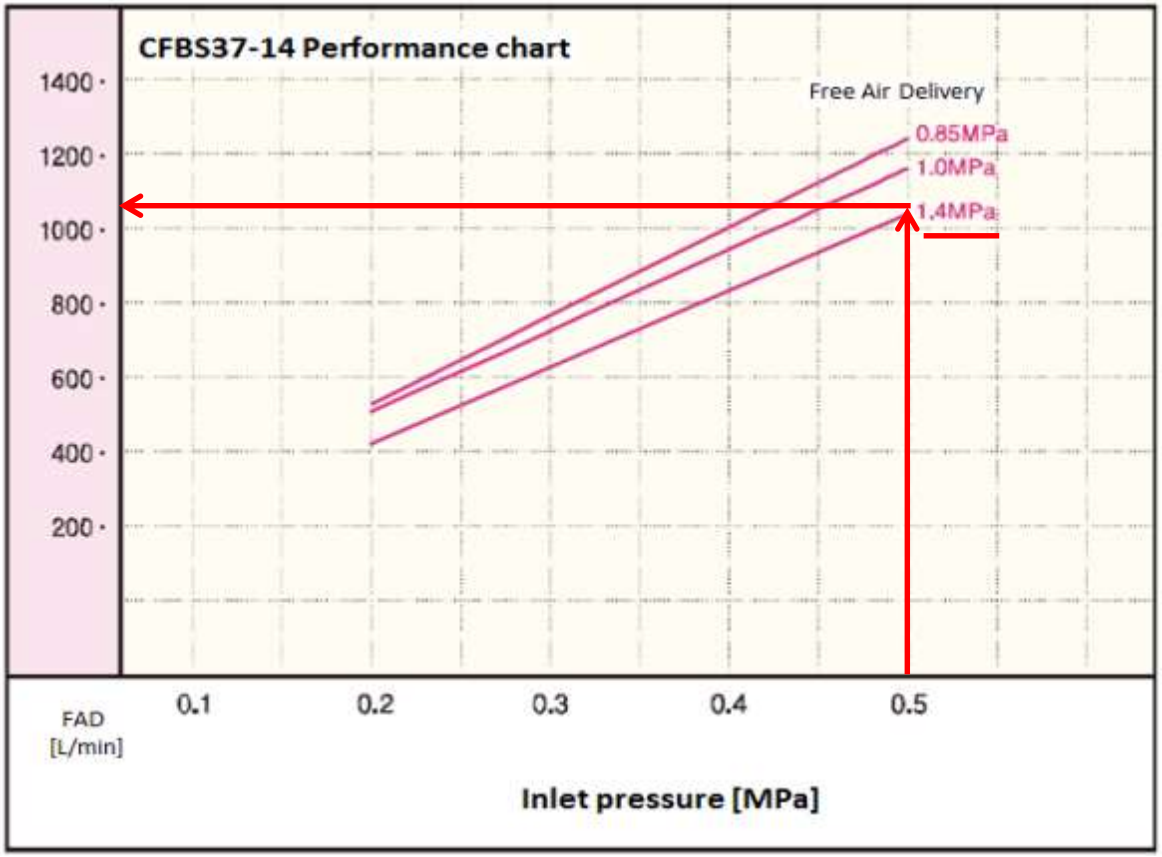
Note: Difference life factor
Compressor is 10000hrs
Regulator is 2000hrs(About 5million pumping)

How to suggest booster compressor

1. Ask requirement factor
   1) Inlet FAD
   2) Inlet Pressure
   3) Exhaust FAD
   4) Exhaust Pressure
   5) Requirement air (Oil free or Lubricated)

2. Ex customer information

ex 1) Inlet FAD : 1200L/min (42.4cfm)
   2) Inlet Pressure : 0.5MPa (5bar)
   3) Exhaust FAD : 1000L/min (35.3cfm)
   4) Exhaust Pressure : 1.4MPa (14bar)
   5) Requirement air : Oil free



3. Select model from Booster chart

1) Inlet FAD : Exhaust air x 1.1 = **1155L/min(40.8cfm) < 1200L/min(42.4cfm)**

2) Inlet Pressure : 0.5MPa(5bar)

3) Exhaust FAD : **1050L/min (37.1cfm) > 1000L/min (35.3cfm)**

4) Exhaust Pressure : 1.4MPa (14bar)

Select model is…. CFBS37-14 (5HP)

ANEST IWATA Lineup model

Model	Power	Frequenscy	Voltage		Intake Press.	Exhaust Press.	Control Range	Comp type	Drive
EFBS04-9.5	0.5HP (0.4kW)	50Hz	Three Phase	200V	1 to 5bar	9.5bar	8.5-9.5bar	Oil free	Direct
EFBS07-9.5	0.9HP (0.7kW)	50Hz	Three Phase	200V	1 to 5bar	9.5bar	8.5-9.5bar		
EFBS15BF-10	2HP (1.5kW)	50Hz	Three Phase	200V	1 to 5bar	10bar	8-10bar		
CFBS37BF-14	5HP (3.7kW)	50Hz	Three Phase	415V	2 to 5bar	14bar	12-14bar		Velt driven
CFBS55BF-14	7.5HP (5.5kW)	50Hz	Three Phase	415V	2 to 5bar	14bar	12-14bar		
CFBS55BF-14	7.5HP (5.5kW)	50Hz	Three Phase	415V	5bar	8bar	6-8bar		
CFBS75BF-20	10HP (7.5kW)	50Hz	Three Phase	415V	3 to 6bar	20bar	18-20bar		
CFBS110BF-10	15HP (11kW)	50Hz	Three Phase	415V	2 to 5bar	10bar	8-10bar		
CLBS55BF-30	7.5HP (5.5kW)	50Hz	Three Phase	415V	5-10bar	30bar	28-30bar	Lubricated	Velt driven
CLBS75BF-30	10HP (7.5kW)	50Hz	Three Phase	415V	5-10bar	30bar	28-30bar		

Customer field (In case of Japan market)

1. Booster regulator user
2. Pet bottle maker
3. Panel laser cutting user
4. Test equipment user

How about your country market?