Unified Team Diving

Gas planning work sheet — metric

What is my Rock Bottom?

Ascent time	x	SAC	x	Divers	x	Avg. depth in bar	=	Rock Bottom
(___+1min)	x	30L/min	x	2	x	bar	=	L

Rock Bottom	÷	Cylinder size	=	Rock Bottom in Bar
L	÷	L	=	Bar

How much gas is in my cylinders?

Cylinder size	x	Cylinder pressure	=	Cylinder volume
L	x	Bar	=	L

What is my usable gas?

Cylinder volume	-	Rock Bottom	=	Usable gas
L	-	L	=	L

Cylinder pressure	-	Rock Bottom	=	Usable gas
bar	-	bar	=	Bar

How much gas do I want for this dive?

Bottom time planned	x	SAC rate	x	Depth in bar	=	Bottom volume	+	Rock Bottom	=	Volume required
min	x	L/min	x	bar	=	L	+	L	=	L

What size cylinder do I need?

Volume required	÷	Cylinder pressure	=	Min. Cylinder size
L	÷	Bar	=	L

How much bottom time can I get out of my gas?

Usable gas	÷	SAC rate	÷	Depth in bar	=	Bottom time
L	÷	L/min	÷	Bar	=	min

What is my gas consumption in bar / min?

SAC rate	÷	Cyl. vol.	x	Depth in bar	=	Bar/min
L/min	÷	L	x	Bar	=	bar/min

What is my personal SAC Rate?

Gas used in bar	÷	Time at depth	÷	Depth in bar	x	Cyl. vol.	=	SAC rate
Bar	÷	min	÷	Bar	x	L		L/min

Gas planning work sheet – Imperial

What is my Rock Bottom?

Ascent time	x	SAC	x	Divers	x	Avg. depth in bar	=	Rock Bottom
(___+1min)	x	.75cuft/min	x	2	x	ATA	=	_____ cuft

Rock Bottom	÷	Cylinder rated volume	x	Cylinder rated pressure	=	Rock Bottom in psi
cuft	÷	cuft	x	psi	=	_____ psi

How much gas volume is in my cylinders?

Starting pressure	÷	Cylinder rated pressure	x	Cylinder rated volume	=	Starting volume in cuft
psi	÷	psi	x	cuft	=	_____ cuft

What is my usable gas?

Cylinder volume	-	Rock Bottom	=	Usable gas
cuft	-	cuft	=	_____ cuft

Starting cylinder pressure	-	Rock Bottom	=	Usable gas
psi	-	psi	=	_____ psi

How much gas do I want for this dive?

Bottom time planned	x	SAC rate	x	Avg depth in ATA	=	Bottom volume	+	Rock Bottom	=	Volume required
min	x	.75/min	x	ATA	=	cuft	+	cuft	=	_____ cuft

How much bottom time can I get out of my gas?

Usable gas	÷	SAC rate	÷	Depth in ATA	=	Bottom time
cuft	÷	psi/min	÷	ATA	=	_____ min

What is my gas consumption in psi / min?

SAC rate	x	Depth in ATA	÷	Rated cylinder volume	x	Rated cylinder pressure	=	psi/min
psi/min	x	ATA	÷	cuft	x	psi	=	_____ psi/min

What is my personal SAC Rate?

Gas used in psi	÷	Time at depth	÷	Depth in ATA	x	Rated cylinder volume	÷	Rated cylinder pressure	=	SAC rate
psi	÷	min	÷	ATA	x	cuft	÷	psi	=	_____ psi/min

Notes