

DSAT Tec Diver Level 1, Tec Deep and Tec Trimix

The following list is only a guide and not a full list of skills etc.

DSAT Tec Diver level 1 Course Sequencing

Knowledge review 1 Practical 1	Set up a technical dive rig	
Dive 1	While executing a no stop dive Determine weight, hover, shutdown free flow reg, shut buddies regulator. close isolation valve, alternate air use long hose, alt air use swimming donor and receiver	10-meter max Pool/limited water Twin set 6:1
Knowledge 2 Practical 2	Plan theoretical dive, a no stop dive simulating a 1 deco gas 2 stop deco long hand calculations, intro desk top software Rig stage cylinders	
Dive 2	While executing a no stop dive Decent S drill, remove replace stage cyls at bottom, remove replace stage cyl On fly, switch to stage cyl NO TOX, reg shutdown and switch reg, deploy bag Record data to calc sac rate, remove replace stage cyl at surface, record dive data at 15-minute point	10-meter max Pool/limited water Single or twins Stage cylinder 6:1
Dive 3	While executing a no stop dive Don 2 stage cyls at surface, stage retrieve cyls, switch gas NO TOX, sim 3 min Deco stop, stage retrieve cyls on fly, remove replace stage cyl no mask, Buddy out of air, reg shut down, deploy lift bag, alternate air swim donor and receiver with no mask, rec data to cal sac, tow unresponsive diver, gas switch x2 NO TOX, sim a 10 min deco stop, rec data to cal deco sac rate, remove cyls surface. Record dive data at some point.	10 meter max Pool/limited Twin set 2x stage cyls 6:1
Knowledge 3 Practical 3	Plan dive 4, a no stop dive but will be simulating a 1 deco gas 2 stop deco Plan dive 5, a no stop dive but will be simulating a 2 deco gas 2 stop deco	
Dive 4	While executing a no stop dive, and simulating a 1-deco gas 2 stop deco Don stage cylinder at surface, descend line buoyancy control, bubble checks. Alternate air source swim 18 metres/2 mins donor and receiver, stage cylinder, Retrieve staged cylinder, perform sac swim 10 mins, deploy lift bag Regulator shut down, ascend line switch to deco gas, sim 6metre deco for 5 min, Sim 5 meter stop 12 mins, record sac data, record dive data at 35 intervals	12-24 metres Single or twins 1 x deco cylinder 6:1
Dive 5	While executing a no stop dive but simulating a 2 decogas 2 stop deco Don stage cyls at the surface, descend line, stage cylinders, Alternate air source swim 18 mins/2 mins donor and receiver no mask retrieve stage cylinders, fast 3 min swim, cal to sac, reg shut down simulate deco stop switch gas NO TOX 9 metres for 3 mins simulate deco stop 6 metres for 6 mins simulate deco stop switch gas NO TOX 5 metres for 14 mins, record sac data. Remove stage cyls at surface, record dive data at 12 min intervals	15-24 metres Twins set 2 x deco cylinders 4:1
Knowledge 4 Practical 4	Plan dive 6 no deco extended dive using EANX stage cyl for real/simulated extended dive Plan dive 7 no deco extended dive using EANX stage cyl, but use deco gas to simulate deco	
Exam 1 Dive 6	While executing a no deco extended dive using EANX stage cylinder for real/simulated extended dive: Just of the bottom do alternate air source swim/18 metres donor and receiver Sim BCD failure and then switch to back up bladder, deploy lift bag Sim 15 min deco stop at 3 meters and perform rag shut down. Record dive data every 15 minutes during dive	24-30 metres Single or twins 1 x stage cylinder 4:1
Dive 7	While executing a no deco extended dive with EANX stage cylinder to extend Dive, but using a deco gas to simulate deco Retrieve a stage cylinder on the fly, sim computer error use back up Deploy lift bag, sim 30 min deco stop at 6 meters, reg shut down. Record dive data at specific point	24-33 metres Single or twins 1 x stage cylinder 1 x deco cylinder

Tec Diver Level 1 course end

Key sim = simulated cyl = cylinder reg = regulator min = minutes deco = decompression rec = record

DSAT Tec Deep Course Sequencing

Knowledge review 5

Practical 5 Plan a theoretical 50-meter decompression dive, several versions and compare

Practical 6 Plan dive 8 accelerated 1 gas, deco dive
Plan dive 9, repetitive, actual 5-metre stop, 1 gas deco dive

Dive 8 While executing a no stop dive but simulating planned accelerated deco dive
Tow unresponsive diver underwater 6 metres
respond to failed lift bag, simulated accelerated deco schedule
regulator shut down, record dive data at specific point in dive

27-40 meters
Twin set
1 deco cyl
4:1

Dive 9 While executing an actual 1 gas 1-stop deco dive but using EANX deco
for extra conservatism
Record dive data as directed, timed task at surface/depth

27-43 meters
Twin set
1 deco cylinder
2:1 +2 with assist

Knowledge 6

Practical 7 Plan dive 10, air, 2 stop deco dive, but using deco gas for conservatism
Plan dive 11, accelerated 2-gas 2-stop deco dive.

Dive 10 Execute a 2-stop deco dive for air but using EANX gas for added safety
Surprise tasks

36-46 meters
Twin set
1x deco cylinder
2:1+2 with assist

Dive 11 Execute a 2 stop 2 deco gas accelerated deco dive.
Surprise tasks

40-50 metres
Twin set
2 x deco cylinder
2:1+2 with assist

Practical 8 Plan dive 12, 2 stop 1 deco gas accelerated deco dive

Exam 2

Dive 12 Execute a full 2 stop accelerated 1 deco gas deco dive

40-50 metres
Twins set
1/2 deco cylinders
2:1+2 with assist

Tec deep course end

Key sim = simulated cyl = cylinder reg = regulator min = minutes deco = decompression rec = record

DSAT Tec Trimix Course Sequencing

Knowledge review 1 Practical 1	Set up a technical dive rig	
Assessment dive (DT optional)	No stop confined water/limited open water, bubble check, out of air Long hose swim x2, shutdown drills, lift bag deploy, tow, don/remove 2 cylinders at surface, time depth aware, notox	18 meter max pool limited water 6:1
Dive1	While executing a no stop dive Determine weight, hover, shutdown free flow reg, shut buddies regulator. close isolation valve, alternate air use long hose, alt air use swimming donor and receiver, bubble checks	10-meter max Pool/limited water Twin set 6:1
Knowledge review 2 Practical 2 Dive 2 (DT optional)	Analyse gases, plan 2 dives with pc Deco dive, (sim trimix) lift bag, simulate emergencies, SAC rate	27- 50m Air/Eanx 2:1
Knowledge review 3 Practical 3	Plan 2 dives, normoxic, with 2 deco gases	
Dive 3	Trimix dive, slate, simulate emergency lost deco gas.	30-50 meter Norm trimix 2:1
Dive 4 (DT optional)	Trimix dive, for non DSAT Tec deep divers	40-55 meter Norm trimix 2:1
Knowledge review 4 Practical 4	Plan 2 trimix dives with O2 16% or higher	
Dive 5	Respond reg free flow, respond sim runaway inflator, deploy bag Deploy second bag, respond to, sim ascent emergency. Demonstrate time depth	45-67 meters 16-21 O2 %Trimix END 40 Meters 2:1
Dive 6	Mission depth experiment, respond to, sim ascent emergency. Demonstrate time depth	45-67 meter 16-21 O2 %Trimix 2:1
Practical 5	Plan dives 7 and 8, 2 – 4 deco gases,	
Dive 7	Dive	52-75 meters 16-21 O2 %Trimix END 40 Meters 2:1
Dive 8	Dive	52-75 meters 16-21 O2 %Trimix END 40 Meters 2:1
Exam		