

Equipment, materials and items specifications

The Reference-laboratory of Dashoguz located at the address: Turkmenistan, Dashoguz, Niyazov's District, TB Hospital

#	Type	Type, brand of equipment	Factory-manufacturer	Unit	Number	Units of weight, kg	Note
1	2	3	4	5	6	7	8
	<u>Ventilation and Air Conditioning</u>						
S1	Channel high-pressure block (L=3050 m3/h, p=150 Pa) with appendage pump (Qcool=25kW; Qheat=26kW)	PEA-RP 250GAQ	Mitsubishi Electric	unit	1	77,0	380/3f
	Compression-condensation unit (Standard Inverter series) (Qcool=25kW; Qheat=26kW)	PUHZ-P250YHA	Mitsubishi Electric	unit	1	141	
	Duct fan 700x400(h) (n=805rpm, N=1,6kW)	KT 70-40-6	Systemair	unit	1	42,4	380/3f
	Flexible connection 700x400(h)	DS 70-40	Systemair	unit	2		
	Electric air heater 700x400(h)	RB 70-40/27-2	Systemair	unit	1	23,1	380/3f
	Supply diffuser 519x519 with a valve	Kvadra-R1-375	Systemair	unit	2		
	Supply diffuser 594x594 with a valve	Kvadra-R1-450	Systemair	unit	3		
	Static pressure chamber 377x377x300(h) / 200x150(h) side entrance		Lissant	unit	2		
	Static pressure chamber 454x454x300(h) / 300x150(h) side entrance		Lissant	unit	2		
	Static pressure chamber 454x454x300(h) / 300x200(h) side entrance		Lissant	unit	1		
	Filter cassette rect 700x400(h) with filter F5	FFK 70-40 + BFK 70-40 (F5)	Systemair	unit	1		
	Protecting canopy 2700x650 for compression-condensation units (S1, S2)		Egida	unit	1		
	Adjustable louver double-row grille with a valve 300x150	NOVA-A-2-2-R1-300x150	Systemair	unit	1		
	Fixing frame for PZAL	UR-710x400 PZ	Systemair	unit	1		
	External grille 710x400(h)	PZAL 710x400-S	Systemair	unit	1	2,9	
	Fixed louver transfer grille 400x200	NOVA-D-1-400x200	Systemair	unit	1		
	Protecting fence 2700x650x1200(h) for compression-condensation units (S1, S2)			unit	1		
	Silencer 400x200(h)	LDR 40-20	Systemair	unit	2	13,0	
	Silencer 500x250(h)	LDR 50-25	Systemair	unit	2	17,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x150(h)		Lissant	l.m.	1		

	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x150(h)		Lissant	l.m.	4		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x200(h)		Lissant	l.m.	1		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 400x200(h)		Lissant	l.m.	10		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x250(h)		Lissant	l.m.	3,5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 600x350(h)		Lissant	l.m.	2,5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 700x400(h)		Lissant	l.m.	1,5		
	Transition 700x400(h) / 1302x250(h) l=500mm **		Lissant	unit	1		
	Transition 1000x250(h) / 600x350(h) l=500mm **		Lissant	unit	1		
	Insulation onto the pipe 1" $\delta=6\text{ mm}$		Termoflex	l.m.	16,5		
	Insulation onto the pipe 1/2" $\delta=6\text{ mm}$		Termoflex	l.m.	16,5		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	56		
	Copper pipe 1"		Mueller	l.m.	15		
	Copper pipe 1/2"		Mueller	l.m.	15		
	Reinforced plastic pipe d32			l.m.	10		
S2	Channel medium pressure block (L=2180 m3/h, p=100 Pa) with appendage pump (Qcool=14kW; Qheat=16kW)	PEA-RP 140JAQ	Mitsubishi Electric	unit	1	47,0	380/3f
	Compression-condensation unit (Standard Inverter series) (Qcool=14kW; Qheat=16kW)	PUHZ-P140YHA	Mitsubishi Electric	unit	1	132	
	Duct fan 500x300(h) (n=1223rpm, N=0,94kW)	KT 50-30-4	Systemair	unit	1	20,8	380/3f
	Flexible connection 500x300(h)	DS 50-30	Systemair	unit	2		
	Electric air heater 500x300(h)	RB 50-30/15-1	Systemair	unit	1	15,6	380/3f
	Supply diffuser 519x519 with a valve	Kvadra-R1-375	Systemair	unit	1		
	Supply diffuser 594x594 with a valve	Kvadra-R1-450	Systemair	unit	3		
	Distributing chamber 1560x250x300(l)** / d200 - 4		Lissant	unit	1		
	Static pressure chamber 377x377x300(h) / 200x150(h) side entrance		Lissant	unit	1		
	Static pressure chamber 454x454x300(h) / d200 overhead entrance		Lissant	unit	3		
	Filter cassette rect 500x300(h) with filter F5	FFK 50-30 + BFK 50-30 (F5)	Systemair	unit	1		
	Fixing frame for PZAL	UR-600x300 PZ	Systemair	unit	1		
	External grille 600x300(h)	PZAL 600x300-S	Systemair	unit	1	2,2	
	Fixed louver transfer grille 300x150	NOVA-D-1-300x150	Systemair	unit	1		
	Fixed louver transfer grille 400x200	NOVA-D-1-400x200	Systemair	unit	2		

	Flexible sound-absorbing insulated air duct $\delta=25$ mm d203	Sonoduct	Polar Bear	l.m.	11		
	Zink galvanized air duct $\delta=0,55$ mm d200		Lissant	l.m.	4		
	Zink galvanized air duct $\delta=0,55$ mm 200x150(h)		Lissant	l.m.	4		
	Zink galvanized air duct $\delta=0,7$ mm 500x300(h)		Lissant	l.m.	1,5		
	Transition 1560x250(h) / 500x300(h) l=500mm **		Lissant	unit	1		
	Clips (50 units)	Uniblock	Polar Bear	kit	0,5		
	Insulation onto the pipe 3/8" $\delta=6$ mm		Termoflex	l.m.	19,8		
	Insulation onto the pipe 5/8" $\delta=6$ mm		Termoflex	l.m.	19,8		
	Tape for metal clamps (30 m)	Uniband	Polar Bear	kit	0,5		
	Foil heat insulating material with glue layer $\delta=20$ mm	Black Star Duct Al 20/1,0-5	Energoflex	m2	21		
	Copper pipe 3/8"		Mueller	l.m.	18		
	Copper pipe 5/8"		Mueller	l.m.	18		
	Reinforced plastic pipe d25			l.m.	10		
S3	Channel medium pressure block (L=1120 m ³ /h, p=100 Pa) with appendage pump (Qcool=10kW; Qheat=11,2kW)	PEA-RP 100JAQ	Mitsubishi Electric	unit	1	41,0	380/3f
	Compression-condensation unit (Standard Inverter series)(Qcool=10kW; Qheat=11,2kW)	PUHZ-P100YHA	Mitsubishi Electric	unit	1	124	
	Supply diffuser 369x369 with a valve	Kvadra-R1-225	Systemair	unit	1		
	Supply diffuser 444x444 with a valve	Kvadra-R1-300	Systemair	unit	1		
	Supply diffuser 519x519 with a valve	Kvadra-R1-375	Systemair	unit	2		
	Distributing chamber 1360x250x300(l)** / d160-2; d200 - 2		Lissant	unit	1		
	Static pressure chamber 228x228x200(h) / d160 overhead entrance		Lissant	unit	1		
	Static pressure chamber 249x249x200(h) / d160 overhead entrance		Lissant	unit	1		
	Static pressure chamber 377x377x300(h) / d200 overhead entrance		Lissant	unit	2		
	Protecting canopy 2700x650 for compression-condensation units (S3, S4)		Egida	unit	1		
	Fixing frame for PZAL	UR-400x200 PZ	Systemair	unit	2		
	External grille 400x200(h)	PZAL 400x200-S	Systemair	unit	2	1,1	
	Fixed louver transfer grille 200x150	NOVA-D-1-200x150	Systemair	unit	1		

	Protecting fence 2700x650x1200(h) for compression-condensation units (S3, S4)			unit	1		
	Flexible sound-absorbing insulated air duct $\delta=25$ mm d160	Sonoduct	Polar Bear	l.m.	9		
	Flexible sound-absorbing insulated air duct $\delta=25$ mm d203	Sonoduct	Polar Bear	l.m.	6		
	Zink galvanized air duct $\delta=0,55$ mm d160		Lissant	l.m.	3		
	Zink galvanized air duct $\delta=0,55$ mm d200		Lissant	l.m.	3		
	Transition 1360x250(h) / 800x200(h) l=500mm **		Lissant	unit	1		
	Clips (50 units)	Uniblock	Polar Bear	kit	0,5		
	Insulation onto the pipe 3/8" $\delta=6$ mm		Termoflex	l.m.	22		
	Insulation onto the pipe 5/8" $\delta=6$ mm		Termoflex	l.m.	22		
	Tape for metal clamps (30 m)	Uniband	Polar Bear	kit	0,5		
	Foil heat insulating material with glue layer $\delta=20$ mm	Black Star Duct Al 20/1,0-5	Energoflex	m2	11		
	Copper pipe 3/8"		Mueller	l.m.	20		
	Copper pipe 5/8"		Mueller	l.m.	20		
	Reinforced plastic pipe d25			l.m.	10		
S4	Channel high-pressure block (L=3500 m3/h, p=150 Pa) with appendage pump (Qcool=25kW; Qheat=26kW)	PEA-RP 250GAQ	Mitsubishi Electric	unit	1	77,0	380/3f
	Compression-condensation unit (Standard Inverter series) (Qcool=25kW; Qheat=26kW)	PUHZ-P250YHA	Mitsubishi Electric	unit	1	141	
	Supply diffuser 369x369 with a valve	Kvadra-R1-225	Systemair	unit	1		
	Supply diffuser 594x594 with a valve	Kvadra-R1-450	Systemair	unit	6		
	Static pressure chamber 228x228x200(h) / d160 overhead entrance		Lissant	unit	1		
	Static pressure chamber 454x454x300(h) / d200 overhead entrance		Lissant	unit	6		
	Fixed louver transfer grille 300x150	NOVA-D-1-300x150	Systemair	unit	4		
	Fixed louver transfer grille 400x200	NOVA-D-1-400x200	Systemair	unit	2		
	Fixing frame for PZAL	UR-600x300 PZ	Systemair	unit	2		
	External grille 600x300(h)	PZAL 600x300-S	Systemair	unit	2	2,2	
	Flexible sound-absorbing insulated air duct ($\delta=25$ mm) d160	Sonoduct	Polar Bear	l.m.	4		

	Flexible sound-absorbing insulated air duct (δ=25 mm) d203	Sonoduct	Polar Bear	l.m.	13		
	Zink galvanized air duct δ=0,55mm d160		Lissant	l.m.	1		
	Zink galvanized air duct δ=0,55mm d200		Lissant	l.m.	7		
	Zink galvanized air duct δ=0,7mm 600x250(h)		Lissant	l.m.	2,5		
	Zink galvanized air duct δ=0,7mm 700x400(h)		Lissant	l.m.	4,5		
	Transition 1200x300(h) / 1302x250(h) l=500mm **		Lissant	unit	1		
	Transition 1000x250(h) / 700x400(h) l=500mm **		Lissant	unit	1		
	Clips (50 units)	Uniblock	Polar Bear	kit	0,5		
	Insulation onto the pipe 1" δ=6 mm		Termoflex	l.m.	24,2		
	Insulation onto the pipe 1/2" δ=6 mm		Termoflex	l.m.	24,2		
	Tape for metal clamps (30 m)	Uniband	Polar Bear	kit	0,5		
	Foil heat insulating material with glue layer δ=20mm	Black Star Duct Al 20/1,0-5	Energoflex	m2	34		
	Copper pipe 1"		Mueller	l.m.	22		
	Copper pipe 1/2"		Mueller	l.m.	22		
	Reinforced plastic pipe d32			l.m.	10		
SN1, SN2	Back-flow valve d160	RSK 160	Systemair	unit	2		
	Safety grille d160	SG 160	Systemair	unit	4		
SN3	Back-flow valve d125	RSK 125	Systemair	unit	1		
	Safety grille d125	SG 125	Systemair	unit	2		
SN4	Back-flow valve d100	RSK 100	Systemair	unit	1		
	Safety grille d100	SG 100	Systemair	unit	2		
E1	Duct fan 500x300(h) (n=1223rpm, N=0,94kW)	KT 50-30-4	Systemair	unit	1	20,8	380/3f
	Flexible connection 500x300(h)	DS 50-30	Systemair	unit	2		
	Throttle-valve 200x200(h)	DK 200x200	Lissant	unit	1		
	Exhaust hood 600x600x500(h) / 200x200(h) **		Lissant	unit	1		
	Egg crate return grille with a valve 200x150	NOVA-E-2-R1-200x150	Systemair	unit	1		
	Egg crate return grille with a valve 400x150	NOVA-E-2-R1-400x150	Systemair	unit	3		
	Bactericidal air treatment section, 500x250x1440(l), 7 UV lamps (N=0,525kW)	SBOW 50-25/67	KORF	unit	1		

	Protecting grid 500x300(h)			unit	1		
	Silencer 500x250(h)	LDR 50-25	Systemair	unit	2	17,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x200(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x200(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x250(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x300(h)		Lissant	l.m.	5		
	Insert-adapter for the grille 200x150(h) / plane *		Lissant	unit	1		
	Insert-adapter for the grille 400x150(h) / plane *		Lissant	unit	3		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	15		
E2	Duct fan 500x300(h) (n=1223rpm, N=0,94kW)	KT 50-30-4	Systemair	unit	1	20,8	380/3f
	Flexible connection 500x300(h)	DS 50-30	Systemair	unit	2		
	Exhaust hood 400x400x300(h) / 200x200(h) ***		Lissant	unit	1		
	Throttle-valve 200x200(h)	DK 200x200	Lissant	unit	1		
	Egg crate return grille with a valve 200x150	NOVA-E-2-R1-200x150	Systemair	unit	1		
	Egg crate return grille with a valve 300x100	NOVA-E-2-R1-300x100	Systemair	unit	1		
	Egg crate return grille with a valve 400x200	NOVA-E-2-R1-400x200	Systemair	unit	3		
	Protecting grid 500x300(h)			unit	1		
	Silencer 500x300(h)	LDR 50-30	Systemair	unit	2	19,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 150x100(h)		Lissant	l.m.	1,5		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x150(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x200(h)		Lissant	l.m.	4		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x200(h)		Lissant	l.m.	3		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x300(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x300(h)		Lissant	l.m.	7		
	Insert-adapter for the grille 300x100(h) / plane *		Lissant	unit	1		
	Insert-adapter for the grille 400x200(h) / plane *		Lissant	unit	3		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	25		
E3	Duct fan 500x250(h) (n=1298rpm, N=0,53kW)	KE 50-25-4	Systemair	unit	1	18,8	230/1d
	Flexible connection 500x250(h)	DS 50-25	Systemair	unit	2		

	Egg crate return grille with a valve 300x150	NOVA-E-2-R1-300x150	Systemair	unit	3		
	Egg crate return grille with a valve 400x150	NOVA-E-2-R1-400x150	Systemair	unit	1		
	Protecting grid 250x250(h)			unit	1		
	Silencer 500x250(h)	LDR 50-25	Systemair	unit	2	17,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x150(h)		Lissant	l.m.	5		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 250x150(h)		Lissant	l.m.	5,5		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 250x250(h)		Lissant	l.m.	2		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x250(h)		Lissant	l.m.	3		
	Insert-adapter for the grille 300x150(h) / plane *		Lissant	unit	3		
	Insert-adapter for the grille 400x150(h) / plane *		Lissant	unit	1		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	11		
E4	Duct fan 500x250(h) (n=1298rpm, N=0,53kW)	KE 50-25-4	Systemair	unit	1	18,8	230/1d
	Flexible connection 500x250(h)	DS 50-25	Systemair	unit	2		
	Exhaust hood 400x400x300(h) / 200x200(h) ***		Lissant	unit	1		
	Exhaust hood 550x550x300(h) / 200x150(h) ***		Lissant	unit	1		
	Exhaust hood 800x550x300(h) / 200x200(h) ***		Lissant	unit	1		
	Throttle-valve 200x150(h)	DK 200x150	Lissant	unit	1		
	Throttle-valve 200x200(h)	DK 200x200	Lissant	unit	1		
	Bactericidal air treatment section, 500x250x1440(l), 7 UV lamps (N=0,525kW)	SBOW 50-25/67	KORF	unit	1		
	Protecting grid 500x250(h)			unit	1		
	Silencer 500x250(h)	LDR 50-25	Systemair	unit	2	17,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x150(h)		Lissant	l.m.	3		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x200(h)		Lissant	l.m.	2,5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x250(h)		Lissant	l.m.	8,5		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	14		
E5	Duct fan 600x350(h) (n=1408rpm, N=0,67kW)	RS 60-35L3	Systemair	unit	1	33,6	380/3f
	Flexible connection 600x350(h)	DS 60-35	Systemair	unit	2		
	Throttle-valve 200x200(h)	DK 200x200	Lissant	unit	1		
	Exhaust hood 600x600x500(h) / 200x200(h) **		Lissant	unit	1		

	Egg crate return grille with a valve 200x150	NOVA-E-2-R1-200x150	Systemair	unit	2		
	Egg crate return grille with a valve 300x100	NOVA-E-2-R1-300x100	Systemair	unit	1		
	Egg crate return grille with a valve 300x150	NOVA-E-2-R1-300x150	Systemair	unit	1		
	Egg crate return grille with a valve 400x150	NOVA-E-2-R1-400x150	Systemair	unit	6		
	Protecting grid 600x350(h)			unit	1		
	Silencer 600x350(h)	LDR 60-35	Systemair	unit	2	23,0	
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x150(h)		Lissant	l.m.	1		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 200x200(h)		Lissant	l.m.	7		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 250x200(h)		Lissant	l.m.	3		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x150(h)		Lissant	l.m.	15		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 300x200(h)		Lissant	l.m.	4,5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 500x250(h)		Lissant	l.m.	5,5		
	Zink galvanized air duct $\delta=0,7\text{mm}$ 600x350(h)		Lissant	l.m.	9		
	Insert-adapter for the grille 200x150(h) / plane *		Lissant	unit	1		
	Insert-adapter for the grille 300x100(h) / plane *		Lissant	unit	1		
	Insert-adapter for the grille 400x150(h) / plane *		Lissant	unit	6		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	51		
E6	Axial fan d125 (N=0,021kW)	IN 12/5 A	O.ERRE	unit	1	0,9	230/1d
	Protecting grid 100x100(h)			unit	1		
	Zink galvanized air duct $\delta=0,55\text{mm}$ d125		Lissant	l.m.	0,5		
	Zink galvanized air duct $\delta=0,55\text{mm}$ 100x100(h)		Lissant	l.m.	5		
	Foil heat insulating material with glue layer $\delta=20\text{mm}$	Black Star Duct Al 20/1,0-5	Energoflex	m2	3		
E7	Axial fan d160 (N=0,033kW)	IN 15/6 A	O.ERRE	unit	1	0,9	230/1d
	Hood d160		Lissant	unit	1		
	Zink galvanized air duct $\delta=0,55\text{mm}$ d160		Lissant	l.m.	2		
C1	Wall split-system (Qcool=2,65kW; Qheat=3,0kW)	MSC-GE25VB/MUH- GA25VB	Mitsubishi Electric	unit	1	9/29	
	Protecting canopy 900x550		Egida	unit	1		

	Arm 450x450			kit	1		
	Copper pipe 3/8"		Mueller	l.m.	15		
	Copper pipe 1/4"		Mueller	l.m.	15		
	Insulation onto the pipe 3/8"		Termoflex	l.m.	16,5		
	Insulation onto the pipe 1/4"		Termoflex	l.m.	16,5		
	Drain tube d16			l.m.	15		
C2	Wall split-system (Qcool=3,5kW; Qheat=3,7kW)	MSC-GE35VB/MUH-GA35VB	Mitsubishi Electric	unit	1	10/35	
	Protecting canopy 900x550		Egida	unit	1		
	Arm 450x450			kit	1		
	Copper pipe 3/8"		Mueller	l.m.	8		
	Copper pipe 1/4"		Mueller	l.m.	8		
	Insulation onto the pipe 3/8"		Termoflex	l.m.	8,8		
	Insulation onto the pipe 1/4"		Termoflex	l.m.	8,8		
	Drain tube d16			l.m.	8		
C3	Wall split-system (Qcool=2,3kW; Qheat=2,5kW)	MSC-GE25VB/MUH-GA25VB	Mitsubishi Electric	unit	1	9/29	
	Protecting canopy 900x550		Egida	unit	1		
	Arm 450x450			kit	1		
	Copper pipe 3/8"		Mueller	l.m.	12		
	Copper pipe 1/4"		Mueller	l.m.	12		
	Insulation onto the pipe 3/8"		Termoflex	l.m.	13,2		
	Insulation onto the pipe 1/4"		Termoflex	l.m.	13,2		
	Drain tube d16			l.m.	12		

Notes:

1. * - length of insert-adapter for every grille depends on the inter-ceiling space height.
2. ** - sizes of transitions and distributing chambers depend on the model of supply equipment.
3. *** - hoods' dimensions depend on particular model of BSCs