



NEW WHITE KNIGHT

Installations & Service instructions

Natural gas dryer type 20a



For use by the authorized installer

GAZELCO™

Generates Certified Heat Technology

TECHNICAL DATA GENERAL

Front operated sensor dryer with gas heating. Reversible drum function. Electronic control with 2 temperature sensors for controlling air return. The air draws in through the front grille and passed through the gas burner and through the cooling passage, respectively. The air is led through the duct at the rear the drum and in through the clothes, passes the lint filter and the blower and is led backwards through the exhaust hose.

CONNECTIONS

**Gas connection: Rp 1/2 (1/2" inside found). Nominal 20mbar
Electricity: 230V, 50 Hz, connected to earth. The mounted 230V cable and plug MUST be used otherwise the warranty is void.
DIMENSIONS Height: 85 cm Width: 59.6 cm Depth: 57 cm
Depth with flue hose mounted: 60cm**

WEIGHT

**With packaging 38 kg
Without packaging 37 kg**

SUPPORT LEGS

The machine is fitted with 2 rollers at the rear and 2 non-adjustable legs at the front.

AIR FLOW

Approx. 120 m³ per hour at full capacity.

IDENTITY

Manufacturing data is located on the back of the machine and serial number is located inside the door rim and can be seen when the door is open. The first 4 digits are year and week of production. The last 6 digits are the machine's identification no. ALL INFORMATION FROM THIS LABEL MUST BE PROVIDED AT ANY SERVICE.

COMPONENTS:

BLOWER MOTOR

Permanent split AC (8µF) 4 pole — Approx. 1/8 HP Overload protection approx. 130 °C

GAS BURNER

**Steel plate with punched flame perforations.
Heat input: 3.0kW (10235 Btu / hr). Nozzle Ø1.32 mm.**

CONTROL

Type: Pactrol flame control, P16AGTD (CE) / P25 GTD (CE) - 417901
414601. Ignition electrode distance to burner 3 to 4 mm.

Ionizing electrode (2020 001 2622). Height from the bottom of the burner to the tip of the ionization electrode 27.0 ± 0.5 mm.

AIR INTAKE THERMOSTAT

(Brown wire)

Bi-metal contact, normally closed.

Contact opens if air supply is blocked. Contact opens, $130 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

Contact shutter, $100 \text{ }^{\circ}\text{C} \pm 5 \text{ }^{\circ}\text{C}$

AIR INTAKE TEMPERATURE LIMITS

(White cord)

Bi-metal contact normally closed.

Contact opens if air intake temperature-limiter fails. Contact opener, $143 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

Contact shutter, $100 \text{ }^{\circ}\text{C} \pm 5 \text{ }^{\circ}\text{C}$

EXTRACT THERMOSTAT

Bi-metal contact normally closed.

Normal make: Switch opens $60 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

$60 \text{ }^{\circ}\text{C}$ (green spot Contact re-sets $49 \text{ }^{\circ}\text{C} \pm 4 \text{ }^{\circ}\text{C}$ tolerance) Sensitive make:

Contact opens $50 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

$50 \text{ }^{\circ}\text{C}$ (red spot Contact re-sets $35 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$ tolerance)

DRUM Volume 105 liters Rpm 50/59 p.m. Capacity 8 kg dry wool

Rotation clockwise 5 min., Counterclockwise 10 sec.

TRANSMISSION

Poly-belt pulled by motor via pulley to external tread on the drum.

ELECTRONIC CONTROL

9 selectable programs provide dryness selection and timed program selection. When the drying is finally, periodic tumbling

(Anti-crease if selected) follows until the machine is emptied.

CHOICE

Selection of hot, FULL, HALF or COLD Activate button with a short press.

LINT FILTER

$0.1\mu\text{F} + 2 \times 2200 / 2400\text{pF} + 2 \times 5\text{mH} + 2\text{M}\Omega$

ACCESSORIES

Flex hose, item no. 2020 001 2684

Wall / window set, item no. 2020 001 2626

**Stacking set for placing tumbler on top of washing machine,
item no. 2020 001 2738**

1. INSTALLATION

The tumbler is designed for installation with flexible gas hose. A leak test must be performed after assembly. When installing, place the machine so that the gas supply can be operated.

The machine is fitted with a 1.5 m electric cable with earth. The machine must not be permanently connected to electricity Contact. If the cable is shortened and a new plug is fitted, the factory warranty lapses.

2. AIR CONSUMPTION

The dryer must be installed in a room with plenty of space and the possibility to open a window or corresponding. The user must be informed that the window or equivalent must be kept open during operation of the dryer.

A ventilation grille of min. 100cm² must be installed if the floor area is less than 3.7 m², 3 / kw capacity for air consumption. Additional guides and legal requirements for installation can be found by the GAS installer.

3. LOCATION

The dryer must not be installed in a bedroom, bathroom or shower room. One should be careful not to have flammable materials near the dryer. The dryer can be placed against walls, kitchen cabinets or similar hard surfaces.

4. VENTILATION

The dryer must be fitted with an exhaust hose that is either inserted through a window or mounted with a flue set supplied by the supplier.

Notes: Be careful not to pinch the flue hose so that it is blocked or has more than 3 bends as this impedes air flow. The flue can be checked periodically and possibly cleaned if necessary.

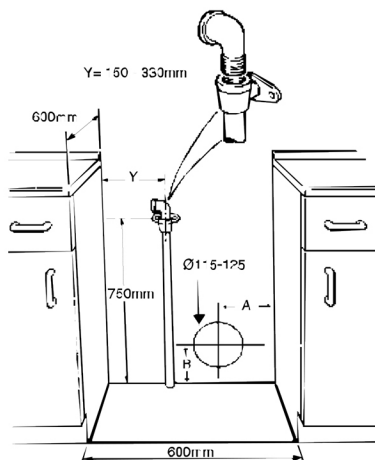
PERMANENT EXTRACT

Accessories window / wall bushing set can be supplied:

See illustration for necessary hole through the wall. Dim. A = 200mm and Dim. W = 100mm too perpendicular assembly from the machine.

Notes: Dim B can be increased to 200mm for a possible easier drilling if necessary.

5. IMPORTANT: POSITION OF DRYER AND CONNECTIONS



The illustration shows the minimum of space required as well as the position of the gas supply. The gas valve can not be mounted with the connection from the wall but must be mounted along the wall due to the space requirement.

The socket must be set up within 1.4 m of the machine (Length of the cord).

If the dryer is placed on a podium or on top of a washing machine (using a stacking set) dimensions of 750mm from the dryer foundation must be observed.

If the dryer is mounted under a table top, there must be min. 15mm between dryer and tabletop.

We recommend "stacking kits" for all dryers that are mounted on top of a washing machine. Following accessory sets are available:

WALL / WINDOW set

STABLING set

See separate assembly instructions that come with each set.

6. OPERATIONAL CHECK

6.1 Remove the test screw on the gas regulator and connect the pressure tester.

6.2 Check that the tumbler's control panel is in the 'off' position and that the heat intensity is set to FULL. Drum must be empty, check that the lint filter is inserted and close the door.

6.3 Open the throttle. Turn on the machine.

6.4 Select program 9 (Timed). Check the ignition. If the gas is turned on but off again, it opens and closes the door again until the machine runs for at least 30 sec. and until all air is removed in the gas supply and the machine is running continuously.

Notes: The throttle does not turn on if the drum is running counterclockwise.

6.5 When the gas burns, the gas pressure is set as described in the technical data. Turn off the machine and unscrew the screw on the gas valve on again. Check for noises.

6.6 Switch on the machine again so that the gas burns. Turn off the gas and hear if the solenoid valves close. After 30 SEC. open the gas again and check that the gas does not ignite. Switch the machine off and on again check for ignition.

6.7 Check that the operation of the machine does not give rise to self-ignition of other gas consumers appliances in the room or adjacent rooms, eg show gas fireplace or gas boiler.

6.8 In the event of a power failure after installation, check that the machine is properly connected to earth.

6.9 IMPORTANT INFORMATION GENERATING THE CONTINUOUS FLAME CONTROL BOX. THE CONTINUOUS FLAME CONTROL BOX ON THIS MACHINE NEEDS 6-12 SEK. RESET PERIOD AFTER EVERY POWER INTERRUPTION. 6 SECONDS BREAK IS NECESSARY BETWEEN EACH ATTEMPT TO START THE MACHINE AFTER EVERY ON / OFF OR OPENING OF DOOR.

7. AIR FLOW: It is important that the air flow in the flue hose is not restricted.

8. MAINTENANCE

This machine does not need an annual inspection unless it is required according to any. rental agreements. All service on the machine must be performed by an authorized service technician.

9. STABLING: Stacking instructions, if desired, are provided with the stacking kit.

PROGRAMS

The electronic control controls the drying level using an electrical resistance method that controls relays for:

a) starts electric motor, for forward and reverse rotation and

b) starts the continuous flame control.

The electronic control determines when the selected drying program is reached, switches off the gas burner and charges the drum continue for 12 min. for cooling. Periodically, the tumbler continues to rotate until the machine emptied - anti-crease is indicated by a lamp on the front panel (If selected).

The continuous flame control opens the 2 solenoid valves after a delay of 8 sec. and activates the ignition electrode. If the flame is not detected by the ionization electrode within 10 sec. Closes the valves again. The system must be restarted by turning on the machine again.

Heat strength selector gives choice for h.h.v. 60°C and 50°C extractor thermostat control. This affects burns the cycle "on" and "off" and gives a longer drying time than the set drying time. Drying times vary depending on the weight and size of the clothes, make, evaporation etc. These thermostats turn off the heat towards the end of the drying program to save energy. The lower temperature thermostat prevents damage on finer fabrics from being damaged by the heat.

The air intake thermostat is mounted at the rear of the bottom of the machine. It can work under special conditions with blocked air intake, overloaded drum or blocked lint filter. This thermostat switches off flame control. This results in the burn cycle "on" and "off" being longer than the preset ones drying times.

Should the thermostat fail, there is an air intake "cut-out" connected to the gas solenoid valves. After one activation, the cut-out can be switched on again by pressing OFF / ON to the power supply for a period of time to restart the heat but a service technician has to correct the fault.

The conditions of failure of air flow, blow-back or gas interruption detected by the ionization electrode will shut down the system.

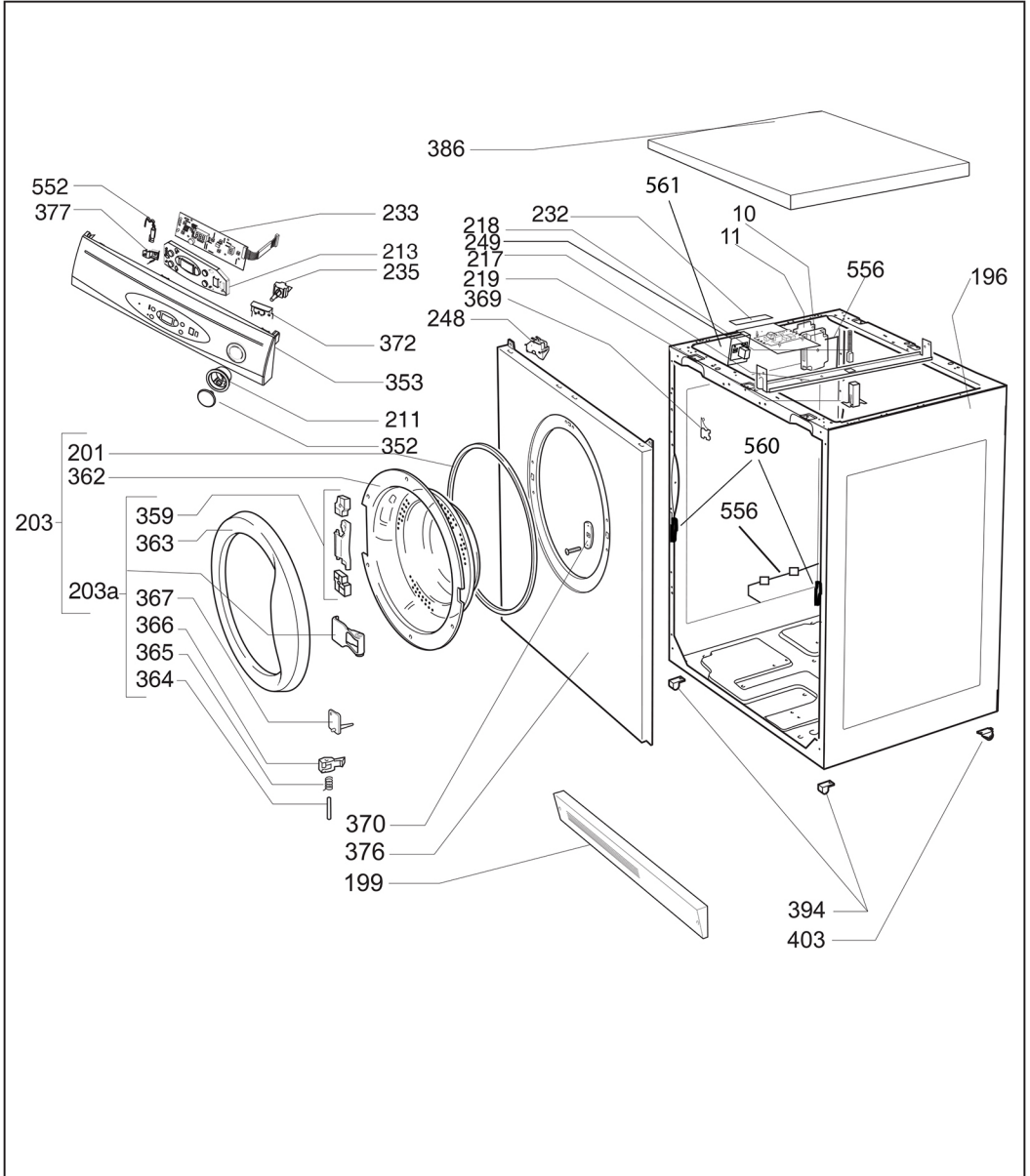
Both drum rotation and heat control are turned off when the door is opened and restarted when the door is closed again as well ON button and START button are pressed.

For drying programs, see the overview on the control panel.

Notes: Avoid fluff flying around and around the dryer.

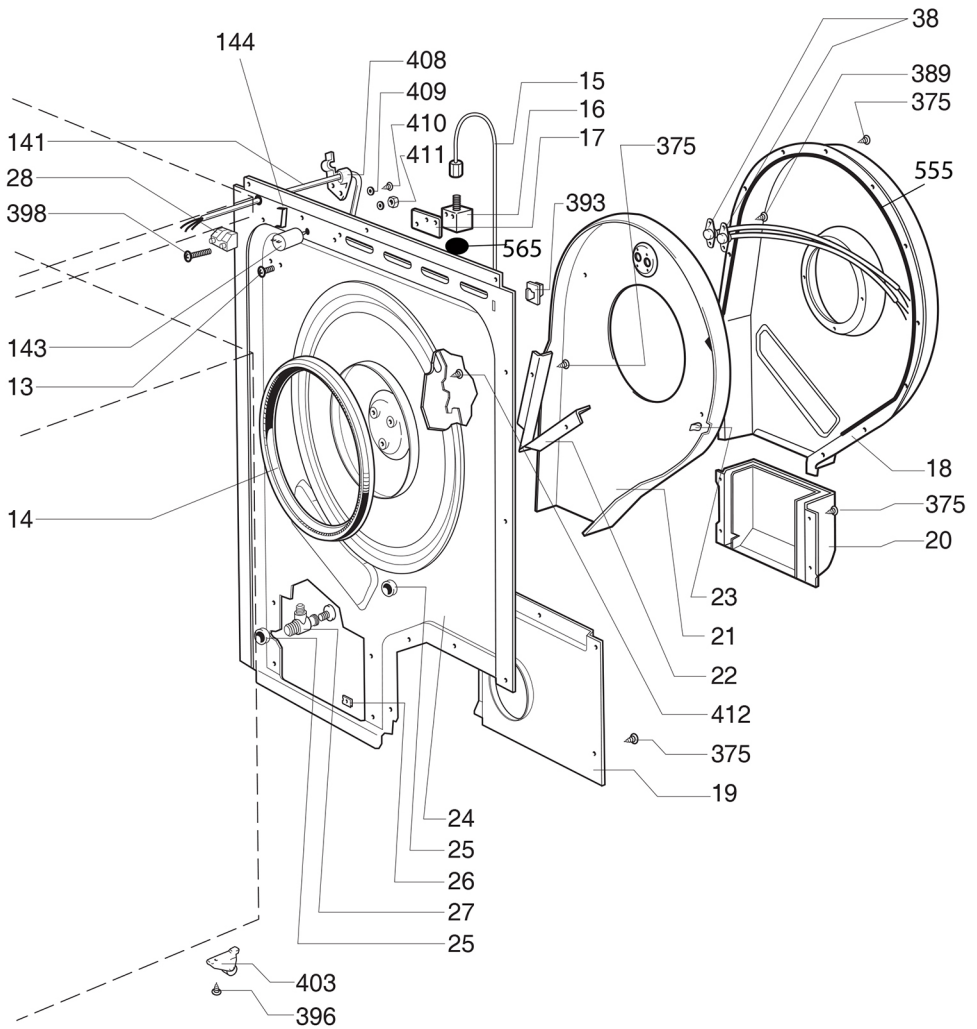
Model 20a

SPLIT DRAWING 1



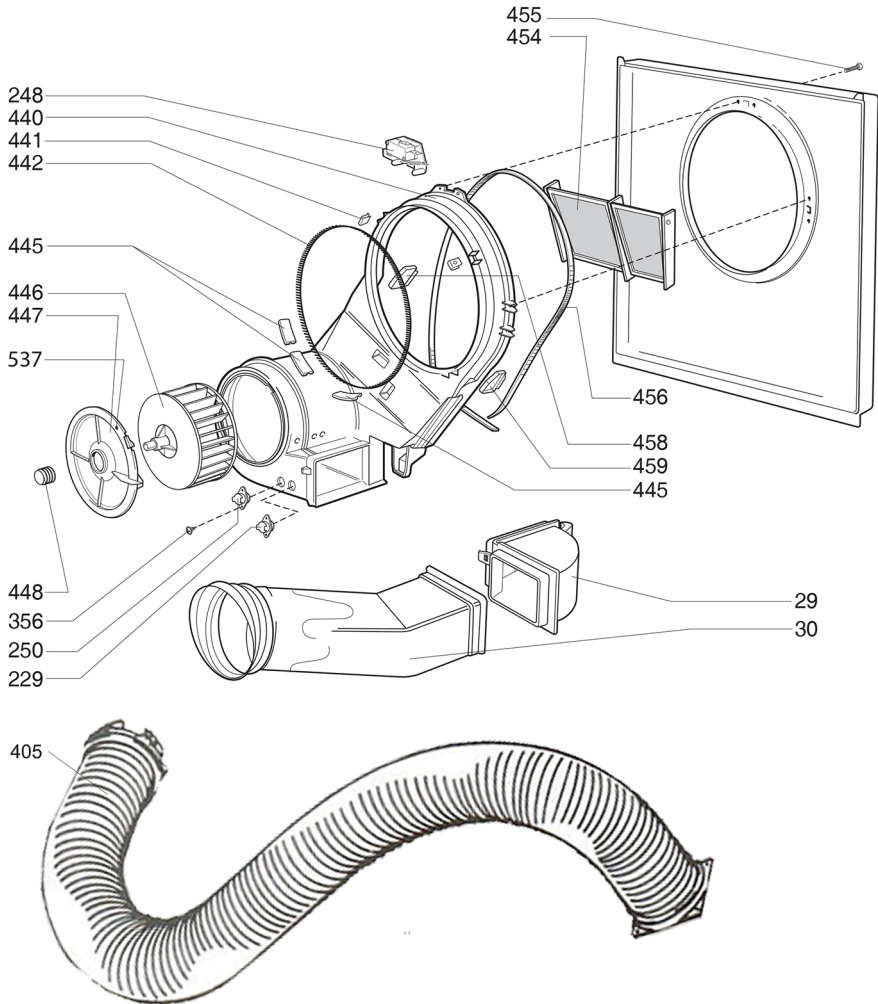
Model 20a

SPLIT DRAWING 2



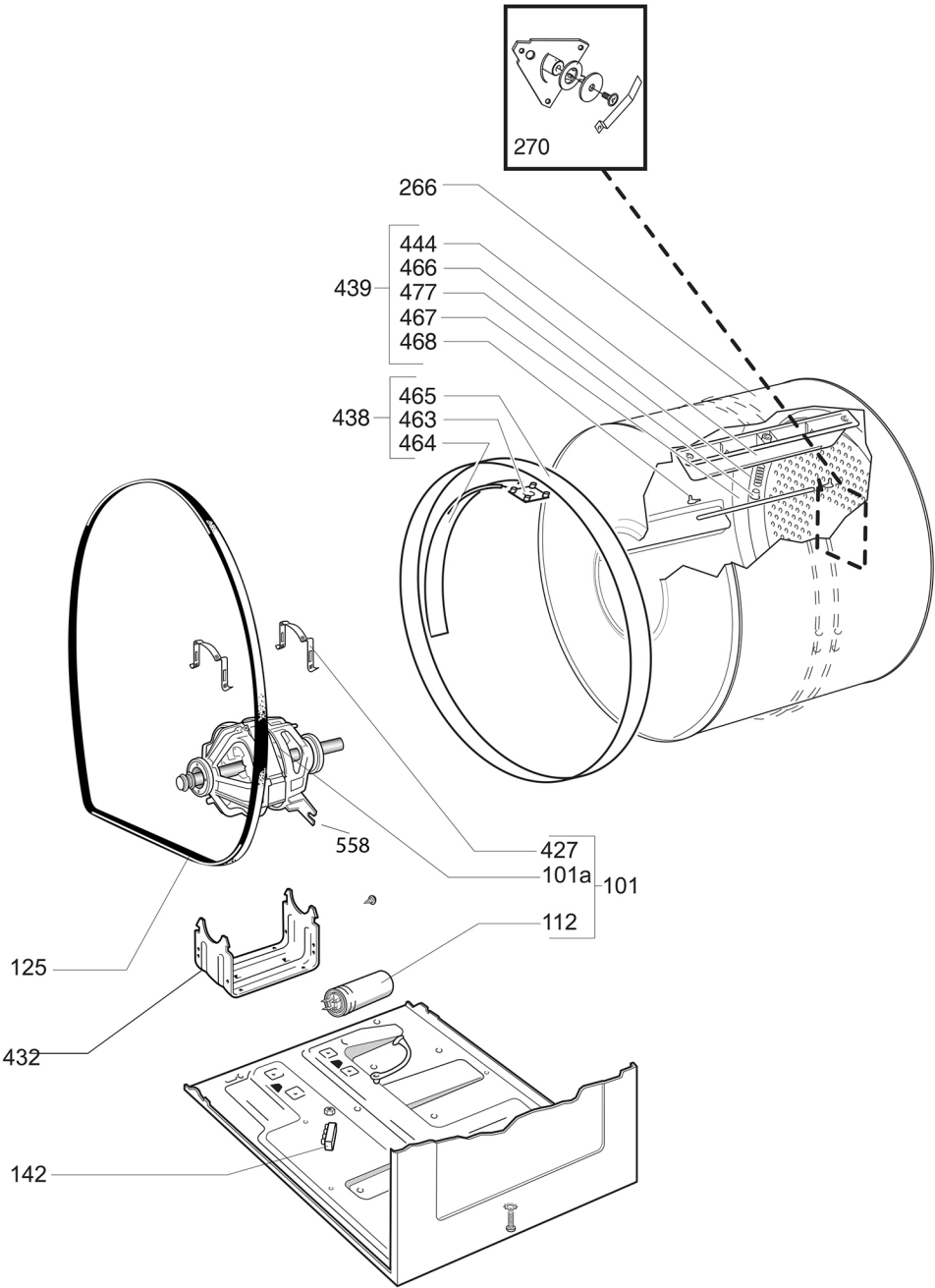
Model 20a

SPLIT DRAWING 3



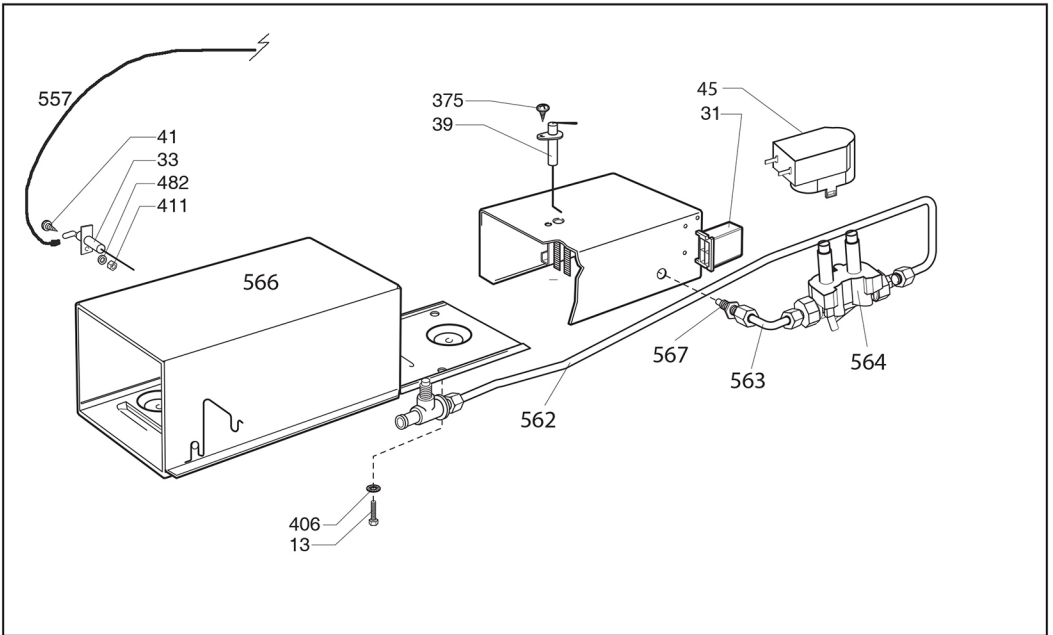
Model 20a

SPLIT DRAWING 4

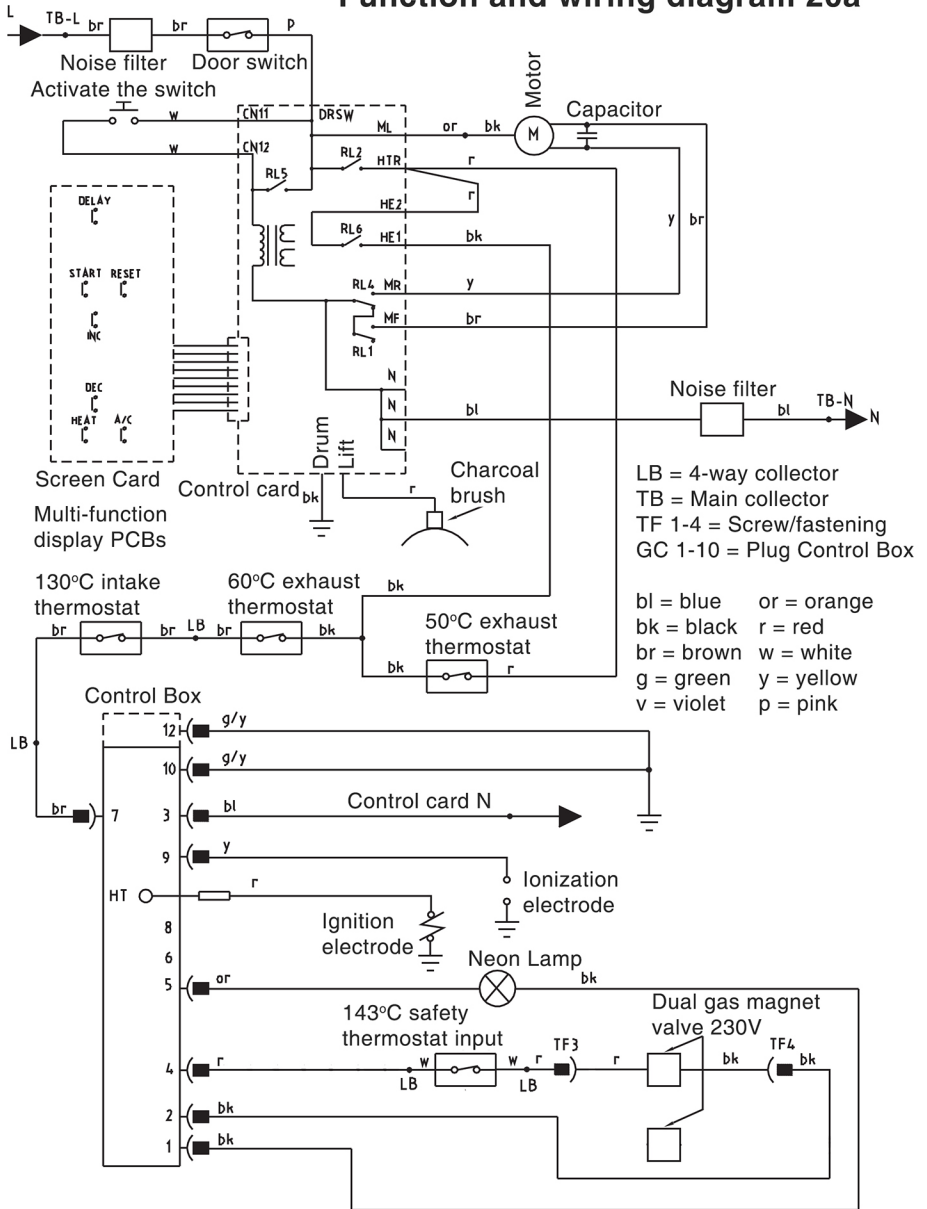


Model 20a

SPLIT DRAWING 5



Function and wiring diagram 20a



Gas tumbledryer 20a natural gas			
Part Number	Description	Expl.View	No.
2020 001 2601	Control box		1 10
2020 001 2602	Control Box Unit Bracket Assembly		1 11
2020 001 2603	6 x Screw M4 x 10	2, 3, 5,	13
2020 001 2604	Rear Seal Assembly		2 14
2020 001 2605	6 x M4 Washer	2, 3, 5,	409
2020 001 2606	Gas Inlet Connector		2 16
2020 001 2607	Restrainer Plate + 2 screws		2 17
2020 001 2608	Rear Banjo		2 18
2020 001 2609	Cover Plate (fluegas access)		2 19
2020 001 2610	Hot Air Elbow Assembly		2 20
2020 001 2611	Air Channel/Insulating Plate 1+1 Assembly		2 21
2020 001 2612	Air Guide		2 22
2020 001 2613	2 x Cable Clip (cabinet back plate)		2 23
2020 001 2614	Back Panel Assembly		2 24
2020 001 2615	2 x Grommet (Black)		2 25
2020 001 2616	4 x U-Nut self tapping 13x15 Ø4,2		2 26
2020 001 2617	Tee Piece/Test Nipple/Plug Assembly		2 27
2020 001 2618	Terminal Block - 2 Way		2 28
2020 001 2619	Exhaust Elbow Assembly		3 29
2020 001 2620	Exhaust Tube		3 30
2020 001 2621	Way Housing Assembly (Power connect burner PP)	3, 5,	31
2020 001 2622	Flame Failure Electrode		5 33
2020 001 2623	Inlet Thermostat & Inlet Temperature Limiter		2 38
2020 001 2624	Ignition Electrode		5 39
2020 001 2625	M4 x 20 Pan Screw		3 455
2020 001 2626	Wall / windows exhaust set		
2020 001 2627	Motor and Capacitor Assembly (QC Passed N5001 RoHS)		4 101
2020 001 2628	Motor (Ceset/Olmo) see 101 4		4 101a
2020 001 2629	Capacitor 8µf		4 112
2020 001 2630	Drive Belt 4213 078 50862		4 125
2020 001 2631	Mains Cable + plug 230V		2 141
2020 001 2632	Terminal Block 4213 078 44613 4		4 142
2020 001 2633	Interference Filter Assy		2 143
2020 001 2634	Earth Tab		2 144
2020 001 2635	Cabinet Assembly		1 196
2020 001 2636	Plinth Assembly		1 199
2020 001 2637	Door Seal		1 201
2020 001 2638	Complete Door Assembly		1 203
2020 001 2639	Door Frame Assembly		1 203a
2020 001 2640	Adaptor Main Switch		1 211
2020 001 2641	Membrane Assembly		1 213
2020 001 2642	Brush Holder Support		1 217
2020 001 2643	Brush Assembly, spring		1 218
2020 001 2644	Brush Holder		1 219
2020 001 2645	Exhaust Thermostat 60 Deg C.		3 229
2020 001 2646	Control Board		1 232
2020 001 2647	Display Board		1 233
2020 001 2648	Momentary Switch		1 235
2020 001 2649	Door Microswitch Assembly		3 248
2020 001 2650	Gas Control Relay used only with control box item 10 -4213 092 55771 wiring dia A		1 249

2020 001 2651	Exhaust Thermostat 50 Deg C.	3	250
2020 001 2652	Drum Assembly	4	266
2020 001 2653	Drum Shaft/Bearing Kit	4	270
2020 001 2654	Button & Knob Clip Assembly Main switch	1	352
2020 001 2655	Control Panel Assembly	1	353
2020 001 2656	Drum bearing		
2020 001 2657	Hinge tabs door		
2020 001 2658	Hinge door	1	359
2020 001 2659	Door window	1	362
2020 001 2660	Door Frame	1	363
2020 001 2661	Latch Pivot	1	364
2020 001 2662	Latch Spring	1	365
2020 001 2663	Door Latch + Handle	1	366
2020 001 2664	Switch Strike	1	367
2020 001 2665	Loom Clip	1	369
2020 001 2666	Latch Guide	1	370
2020 001 2667	Switch/Timer Bracket	1	372
2020 001 2668	Pan Screw St M3 x 5 (sensors)	3	356
2020 001 2669	52 x 6 x 3/8 Earth Screw MZP	2, 5,	375
2020 001 2670	Front Panel Assembly	1	376
2020 001 2671	Lens	1	377
2020 001 2672	Table Top Assembly - Ellipse	1	386
2020 001 2673	Cable Tie	4	387
2020 001 2674	Screw 6AB x 6.5	2	389
2020 001 2675	Flex Support Clip	2	393
2020 001 2676	2 x Foot solid cast	1	394
2020 001 2677	Flb Ear Scr St Zn 8 x 3/8 for PP	1, 2, 3,	396
2020 001 2678	2 X Screw M4 x 25 Terminal blocks	2, 4,	398
2020 001 2679	2 x Roller Assembly	2	403
2020 001 2680	3 x M5 Toothed Lockwasher	3	406
2020 001 2681	3+3 x screw M5 10mm bearing	4	407
2020 001 2682	Cable Clamp 2	2	408
2020 001 2683	2 x Washer M8 Form A	3	409
2020 001 2684	Venting hose	3	405
2020 001 2685	2 x Screw No6 X1/4 2682	2	410
2020 001 2686	3 x M4 Hex Nut	2, 3, 5,	411
2020 001 2687	6 x Screw M4 15mm	2	412
2020 001 2688	2 x Motor Retaining Clips	4	427
2020 001 2689	Motor Mounting Bracket	4	432
2020 001 2690	Slip Ring Assembly	4	438
2020 001 2691	Sensing Strip Assembly PP	4	439
2020 001 2692	Banjo Assembly PP	3	440
2020 001 2693	Front Bearing (short) 2 pcs	3	441
2020 001 2694	Front Bearing (long) 3 pcs	3	445
2020 001 2695	Front Seal	3	442
2020 001 2696	3 x Lifter	4	444
2020 001 2697	Fan	3	446
2020 001 2698	Access Cover (fan) n/a 3	3	447
2020 001 2699	2 x Hex nut 13"	1	411

2020 001 2700	Fan Spring Clip	3	448
2020 001 2701	10x Ear screw M4 10mm	1	451
2020 001 2702	Filter Door	3	454
2020 001 2703	Screw 2 x 12	3	455
2020 001 2704	Banjo Seal	3	456
2020 001 2705	Banjo Insert No 2	3	458
2020 001 2706	Banjo Insert No 1	3	459
2020 001 2707	Location Grommet	4	463
2020 001 2708	Slip Ring Insulator	4	464
2020 001 2709	Slip Ring	4	465
2020 001 2710	Ring Spring	4	466
2020 001 2711	Sensing Strip	4	467
2020 001 2712	Sensing Strip Clip	4	468
2020 001 2713	Ring Spring Plug	4	477
2020 001 2714	1x Washer M4	1	409
2020 001 2715	537 W' Button (access cover)	3	537
2020 001 2716	Neon	1	552
2020 001 2717	Rear Banjo Seal Kit	2	555
2020 001 2718	HT Ignition Lead + pads	1	556
2020 001 2719	Ion Lead	5	557
2020 001 2720	Plastic holder for capacitor	4	558
2020 001 2721	Control board clips x 4	1	559
2020 001 2722	Front Cabinet guider (Black PP)	1	560
2020 001 2723	Gas control relay holder (2020 001 2650)	1	561
2020 001 2724	External Feed Pipe (Natural gas tube 2)	5	562
2020 001 2725	External Feed Pipe (Natural gas tube 1)	5	563
2020 001 2726	External Feed Pipe (Natural gas tube 3)	2	15
2020 001 2727	Gas Valve, (tandem) Natural gas	5	564
2020 001 2728	Solenoid Coil (tandem), Natural Gas	5	45
2020 001 2729	Gas pressure regulator	2	565
2020 001 2730	Gas burner Assembly	5	566
2020 001 2731	Gas nozzle (Natural gas)	5	567
2020 001 2732	2 x screws (Gas Inlet connector)	2	16
2020 001 2733	Edge clips 3,1-3,8mm	1	568
2020 001 2734	Edge clips 1,1-2,0mm	1	569
2020 001 2735	Edge clips 0,6-1,6mm	1	570
2020 001 2736	4 x screws 3M x 10mm	1	0
2020 001 2737	4 x Pan screws 3M 10mm	1	0
2020 001 2738	Stacking set Washing/tumble dryer machines		

GAZELCO™

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