

Eastern Railway
Asansol
PIN : 713301



Office of the
Divisional Electrical Engineer
MEMU Car shed, Asansol

No. MCS/147/RSP

Dated 11/11/25

Dy. CEE/P&D/KPA
Eastern Railway

Sub. :- Procurement of 150 Main Compressor for EMU/MEMUs

Ref. :- (i) Dy. CEE/P&D/KPA L/No. EPD/W/CAP/551/25-26/TR, Dt. 30.10.25.

(ii) Rly Bd's Letter no 2024/Elect(G) /129/2 dt. 08/05/25.

(iii) Dy. CEE/W/KPA s letter no. EC/T-81/RSP demand/25-26 /KLM/462 dt. 11/06/25.

(iv) Sr. DEE/EMU/SDAH's letter no. ELS /Store /TRS/25-26 dt. 17 /06/25.

(v) DEE/MEMU/ASN'S letter no. ELS/147 /RSP dt. 14 /06/25.

In connection with above all it is being certified that Air Compressor with Motor similar to ELGI Model No. RR15070 & ELGI Model No. RR20070 is not interchangeable with any other make/type of Air Compressor. This specific Air Compressor is mandatorily required (PAC item).

This is for your kind information and necessary action please.

(SURAJ KUMAR)

DEE/MEMU/ER/ASN

मंडल विद्युत अभियंता

मेमू शेड, पूर्व रेलवे, आसनसोल

Divisional Electrical Engineer

Memu Shed, E. Ry., Asansol



No. EC/T-90/RSP/MCP/2025-26/SKG

Date: 15.11.2025

Dy.CEE/P&D/KPA
Eastern Railway

Sub: Procurement of 150 Main Compressor of EMU/MEMU
Ref: Dy.CEE/P&D/KPA's L/No. EPD/W/CAP/551/25-26/TR, Dated: 30/10/2025

With reference to the above, it is informed that **only one** compressor the **ELGI make, Model RR10070** (Ref. letter Sl. No. 01), complete with dryer and accessories **is interchangeable** with the **Faiveley make compressor, Model Buran-10 (Part No. FT0052441-101)**. However, the **remaining two ELGI make compressors** (Ref. letter Sl. No. 02 & 03) are **not interchangeable** with any other make or type of compressor.

Details Technical Specifications are attached in the attached Annexure - 'I'

This is for your kind information and necessary action please.

DA : 'Annexure-I'

15/11/25
SSE/29B/APP-I/Compressor/KPA

15/11/25
WM/KPA
Eastern Railway

Eastern Railway Workshop
Kanchrapara
24-North Parganas, West Bengal



Office of the
Dy. Chief Electrical Engineer/W
PIN Code: 743145

Annexure-I

Technical Data:

Model	RR10070 OF WITH DRYER	
Type: Reciprocating, Air cooled, Oil free		
Working Pressure	kgf/cm ²	7
Displacement	m ³ /min	1.235
	lpm	1235
Free air Delivery	m ³ /min	0.90
	lpm	900
Specific power consumption	kw/ m ³ /h	0.139
Compression stages	No.	2
Cylinders	No.	3
Compressor Speed	Rpm	1450 ±5%
Power supply condition for motor	V/Hz/Ph	415± 10% /50 / 3
Power supply condition for Hour meter	V	415± 10%
Power supply condition for unloader valve	V	110 V DC
Power supply condition for air dryer	V	110 V DC
Motor rating	HP (kw)	10 (7.5)
Motor type	-	Fan cooled, DOL
Motor speed	rpm	1450±4%
Frame size & Motor mounting type	-	132M B8 mounted
Insulation & protection of Motor	-	Class H, IP 66
Max. allowable current at continuous duty and nominal power supply	A	14.3
Type of Valve	-	Combined disc Valves
Direction of rotation	-	Anti clock wise as viewed from drive end
Type of Drive	-	Directly coupled with motor by a hollow shaft
Safety valve set pressure (IC)	kgf/cm ²	6
Safety valve set pressure (AC)	kgf/cm ²	8
Air outlet temperature	°C	Max Amb+10°C at A/C outlet
Air outlet port size	-	1" BSP(female) (At package outlet)
Overall dimensions L x B x H	mm	1504 x 705 x 687 ±10
Weight	kg	330
Dew point depression of dryer	°C	30°C min at design capacity, 15°C min at max flow and temperature
Air loss	%	15
Pressure Drop of dryer	%	3% of inlet pressure max
Refer IS: 5456 for tolerances on FAD and Specific Power Consumption		

Technical Data:

Model	RR15070	
Type: Reciprocating, Air cooled, Splash lubricated		
Direction of rotation		Anti-clockwise when viewed from Compressor drive end (motor)
Working Pressure	kgf/cm ² g	7.0-8.4
FAD- Free Air-Delivery @ 7.0 kgf/cm ² g	cfm (lpm)	42.4 (1200)
Displacement	cfm (lpm)	55.8 (1580)
Compression stages	Nos.	2
Number of LP Cylinders	Nos.	2

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Cylinder configuration	-	W Type
Diameter of LP Cylinder bore	mm	90.00
Diameter of HP Cylinder bore	mm	60.00
Stroke Length	mm	85.00
Rated Speed of Compressor	rpm	1460
Type of Valves	-	Concentric disc valve
Type of Drive transmission	-	Taper lock driven
Air Filter type	-	Dry type
Type of cooling	-	Air cooled
Type of lubrication	-	Splash
Oil recommended	-	Servo Press 150 RR
Total Oil fill capacity	Min ml	2300
	Max ml	3650
Maximum allowable air temperature at A/C outlet	°C	< Amb \pm 30°C
After-cooler air outlet port size	-	1-1/4" BSP
Overall Dimension of unit	mm	1540 x 710 x 700
Net weight	Kg	460(with dryer) 400 (Without dryer)
Safety valve setting on inter-cooler	kg/cm ²	6
Safety valve setting on after-cooler	kg/cm ²	9.5
Motor make	-	M/s ELGI electric
Type	-	Special hollow rotor
No. of poles	-	4
Rated speed of drive	rpm	1450
Nominal power supply condition	V/Hz/Ph	415 / 50 / 3
Shaft Power	HP (kw)	15.0 (11.2)
Insulation and Protection of Motor		Class H. IP 275
Frame size/Mounting type of Motor		160 L & BB
Maximum allowable current at intermittent duty	Amps	20.0
Type of cooling		Air cooled using Fan

Technical Data:

Model	RR20070 OF(M) WITH DRYER	
Type: Reciprocating, Air cooled, Oil free, Under slung		
Working Pressure	kgf/cm ²	7
Displacement	m ³ /hr	172.8
	lpm	2880
Free air Delivery	m ² /hr	105
	lpm	1750
Specific power consumption	kw/ m ³ /h	0.157
Compression stages	No.	Two
Cylinders	No.	3
Cylinder size & Stroke	mm	150 x 150 x 100 x 55.4
Compressor Speed	rpm	1470 ±4%
Power supply condition for motor	V/Hz/Ph	415±10% /50 / 3 AC
Power supply condition for unloader valve	V	110 / DC
Power supply condition for air dryer	V	85-130/DC
Motor rating	HP (kw)	22 (16.4)
Motor type	-	Fan cooled, DOL
Motor speed	rpm	1470±4%

P.T.O

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Frame size& Motor mounting type	-	ND 180M & Monobloc cum B8 Foot mounted
Insulation & protection of Motor	-	Class H, IP 66
Max. allowable current at continuous duty and nominal power supply	A	30
Type of Valve		Combined disc Valves
Direction of rotation		Anti clock wise as viewed from drive end
Type of Drive		Directly coupled with motor by a hollow shaft
Safety valve set pressure (IC)	kgf/cm ²	6
Air outlet temperature	°C	Max Amb+20 at A/C outlet
Air outlet port size		1" BSP (At package outlet)
Overall dimensions L x B x H	mm	1680 x 725 x 10 ±10
Weight	kg	620 max
Dew point depression of dryer	°C	30 min at design capacity, IS min at max flow and temperature
Air loss	%	15
Pressure Drop of dryer	%	3% of inlet pressure max
Refer IS: 5456 for tolerance on FAD and Specific Power Consumption		

Main Characteristics of AGTU

FEATURES	VALUE	UNIT	TOLERANCE
FREE AIR DELIVERY BEFORE AIR DRYER AT 7 BAR	920	L/min	±7%
FREE AIR DELIVERY AFTER AIR DRYER AT 7 BAR	740	L/min	±7%
COMPRESSOR ROTATION SPEED	960	Rpm	±4%
WORKING PRESSURE	7.0	bar	
SHAFT POWER	6.2	kw	±7%
DELIVERED AIR QUANTITY AFTER AIR DRYER (ISO 8503)	3-3-N.A		
TEMPERATURE OPERATING RANGE	+3 TO +50	°C	±2°C
DELIVERED AIR TEMPERATURE	AMBIENT + 15	°C	
DUTY CYCLE	30 TO 100%		
OPERATING MODE	START/STOP		
START PER HOUR	MAXIMUM 20		
ALLOWED SUPPLY HARMONIC DISTORTION	15 MAX	%	
MAX 3 PHASE VOLTAGE Dv/dt	500 MAX	V/S	
ELECTRICAL POWER CONSUMPTION AT 7 BAR (INPUT POWER)	9.7	KW	Maximum
ELECTRIC POWER SUPPLY	415	Vac	±5%
	50	Hz	±2%
	17	A	±5%
NOMINAL CURRENT 7 BAR	< 300	A	
PEAK CURRENT AT START UP	IP 55		
MOTOR IP PROTECTION (IEC 34-5)	H		
MOTOR INSULATION CLASS (IEC 85)	110	V DC	-30% / + 25%
AUXILIARY VOLTAGE SUPPLY WITH TOLERANCE	150	W	
AUXILIARY POWER ABSORPTION (110 V dc)	350	Kg	±5%
TOTAL WEIGHT- AGTU	RAL 7016		
MOUNTING FRAME MADE OF CARBON STEEL WITH PAINTED	CLASS 40-70%		

SSE/29B/APP-I/Compressor/KPA