

# **Self-Priming Centrifugal Grinding Pumps**

# Description

Pumps are horizontal, one-stage, self-priming centrifugal with an open impeller handling large solids up to 20 mm (3/4"). Foot valve is not necessary. The pump primes and re-primes automatically to depths over 7,5 meters (25 feet). With easily replaceable wear plates, these pumps have a high resistance to abrasion. The impeller can easily be inspected through a large cover. All pumps are equipped with externally lubricated mechanical seals with hard faces. Lubrication prevents damage during dry running.

## **Construction Features**

Impeller:

110 mm Ø

Self-priming centrifugal pump with impeller open blades, cast-iron construction with galvanic protection (zinc anode), suction and discharge holes threaded 1 "1/2 gas, mechanical seal silicon carbide / ceramic / viton, flap valve and rubber seals nitrile, wear flat front rotor with knives, shredders bronze / aluminum.

## **Summary Table**

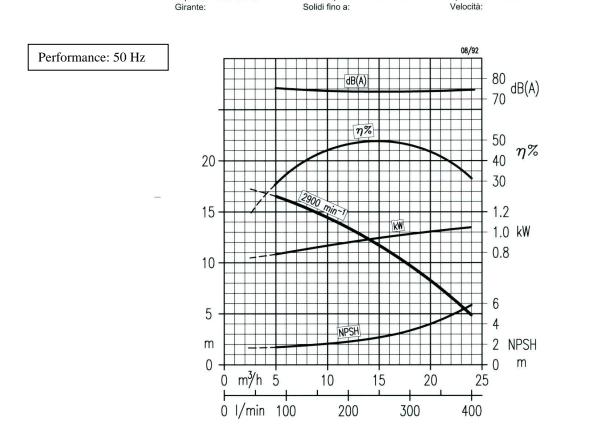
Туре	Si	Size		Motor Power	Nominal Impeller	Pedestal Size	Weight
	in	mm	Ø mm	kW	Ø mm	Size	kg
S 42	11⁄2"	40	20	1,1-1,5	110	1	25

Solids up to:

20 mm Ø

2900 min-1

Speed:



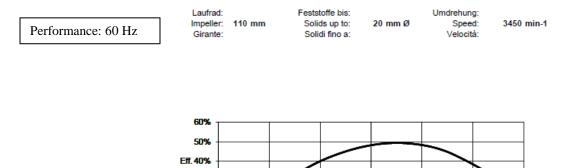
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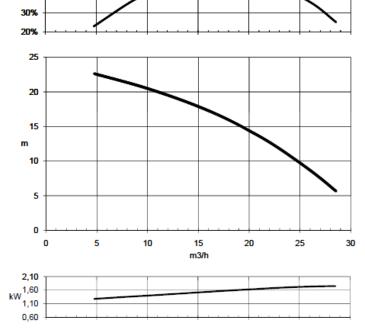
Head Office and Plant: 91025 MARSALA (TP), ITALY - C.da Berbaro, 145/D - S.S. II5 Km. 36.4 Phone (+39) 0923 969409 - Fax (+39) 0923 960235 Subsidiary: 55049 VIAREGGIO (LU) - Via M. Coppino, 67 - Phone / Fax (+39) 0584 395408 www.tecnicomar.it · E-mail: info@tecnicomar.it



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# Motor description single phase

Single phase motor 1,1kW 2Poles 220-240V 50Hz	Frame 80
Form IM B3/B14	Rated output 1,1 [kW]
Service factor 1.0	Type of duty S1
Rated voltage 220-240 [V]	Rated frequency 50 [Hz]
Poles 2	speed 2790 [min-1]
Power factor 0,94	Rated current 8,3 [A]
Rated torque 3,5 [Nm]	Insulation class F
Enclosure IP55	Bearings: Drive end 6204-2RS; Non drive end 6204-
	2RS
Starting torque/Rated torque 0,6 Msp/Mn	Starting current / Rated current 2,8 Isp/ln
Permanent capacitor = $30\mu F$	Special Shaft mec 80

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MOTORS DATA SHE	EET	
SPECIFIC. N°: AF100012		
MOTOR PART NUMBER	T2DCE540	
CUSTOMER PART NUMBER/DRAWING	59121	
MOTOR TYPE	TR80C2	
POLES	2	
PROTECTION DEGREE	IP55	
VOLTAGE - FREQUENCY	230/400 – 240/415/50Hz	
	265/460 - 277/480/60HZ	
CURRENT (A)	6,40 / 3,70	
COS φ	0,80	
EFFICIENCY η%	73 %	
DIRECTION OF ROTATION	BIDIRECTIONAL	
ENVIRONMENT CONDITION	T° ≤ +50°C	
NOMINAL POWER (kW)	1,50	
NOMINAL SPEED (rpm)	3000/3600	
DUTY	S1	
INSULATION CLASS	F	
MOUNTING / POSITION	IM B34	
FRAME	IEC 80	
MATERIAL FLANGE/END SHIELD	ALLUMINIUM	
MATERIAL TERMINAL BOX	ALLUMINIUM	
	NYLON	
MATERIAL FANCOVER	GALVANIZED STEEL	
MATERIAL SHAFT	STAINLESS STEEL AISI 420	
BEARING TYPE	"B" SIDE 6204 2RS	
beaution in c	"A" SIDE 6204 2RS	
MOTOR COLOUR	NO PAINTING	
MOTOR COLOUR SPECIAL CHARACTERISTICS	HOLES FOR CONDENSATE DRAINAGE	
SPECIAL CHARACTERISTICS		
	THERMISTOR PROTECTOR PTC OIL SEAL WITHOUT SPRING	
TYPE OF WINDING	STD. 3 PHASE	
ANTICONDENSATION HEATER TYPE	1	
	ARACTERISTIC TH FOLLOWING STANDARDS	
RATING AND PERFORMANCE EN60034	(IEC34)	
VOLTAGE STANDARDS IEC38		
MOUNTING CHARACTERISTICS IEC34-	7	
PROTECTION DEGREE IEC34-5		
DIMENSIONAL IEC72-1		
LOW VOLTAGE DIRECTIVE 2006/95/CE	(LVD)	
ELECTOMAGNETIC COMPATIBILITY DI	RECTIVE 2004/108/CE ( EMC )	
MACHINE DIRECTIVE 2006/42/CE (ONLY	WITH CONFORMITY OF INSTALLATION MACHINES)	
SAFETY: EN60204		
DIELECTRIC STRENGHT TEST AND INS RESTRICTION OF HAZARDOUS SUBST	ULATION: COMPLY WITH CE144-5 EN60204-1 ANCES DIRECTIVE 2002/95/CE (RoHS)	

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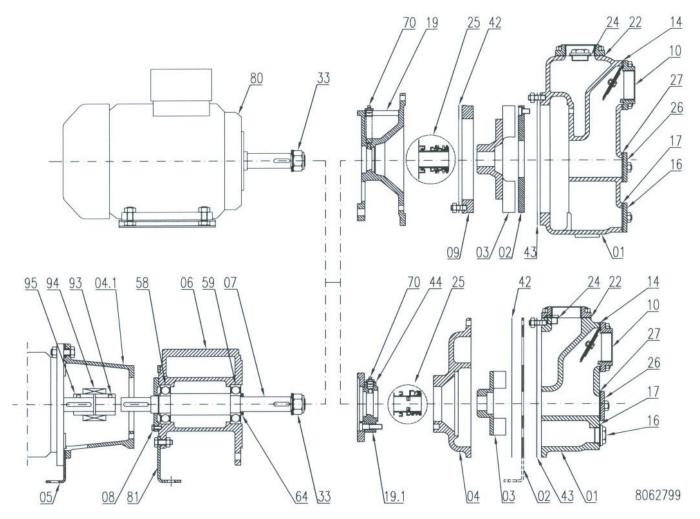
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### Exploded views of S42 pump



Ref.	Part Name	
01	Casing	
02	Wear Plate	
03	Impeller	
04	Volute	
04.1	Bracket	
05	Foot, Bracket	
06	Bearing Housing	
07	Shaft	
08	Bearing Cover	
09	Wear Plate rear (with 42)	
10	Suction Flange	
14	Check Valve	
16	Drain Cover or Plug	
17	Gasket (Drain)	
19	Head	
19.1	Seal Box	
22	Gasket, Discharge Flange	

Ref.	Part Name	
24	Gasket (Priming)	
25	Mechanical Seal	
26	Clean Out Cover	
27	Gasket (Clean Out)	
33	Nut, Impeller	
42	Gasket, Volute	
43	Gasket, Casing	
44	Gasket, Seal Box	
58	Ball Bearing, outer	
59	Ball Bearing, inner	
64	Sleeve, inner	
70	Grease Lubricator	
80	Electric motor (with 33)	
93	Coupling Half	
94	Rubber Part	
95	Coupling Half	
	Gasket Set (with14,17,22,27,42,43)	

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