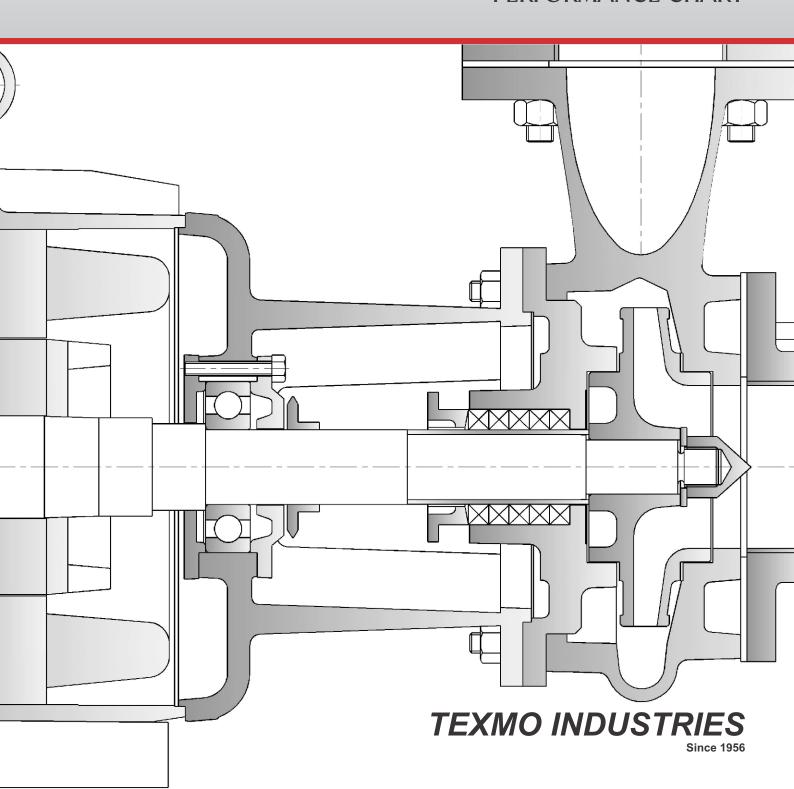


# SINGLE PHASE JET MONOBLOCS PERFORMANCE CHART



## **GENERAL INFORMATION**

#### PERFORMANCE RELATED SPECIFICATIONS

 Recommended voltage range : (At motor terminal)

Single Phase	Three Phase
180 - 240 V	350 - 440 V

Electric power supply
 : 415 / 220 V, 50 Hz, AC power supply

• Advisable to operate in the pump set in the recommended range for trouble free operation and to ensure a long life.

• Time interval between subsequent starts: 5 minutes (minimum)

 Pump sets are suitable for pumping clear, cold, non-aggressive water without any abrasive solid particles with the following characteristics

Temperature : 33°C Maximum

Allowable sand content : 50 mg / lit Maximum

Total Dissolved Solids : 3000 mg / lit Maximum

Hardness : 300 Maximum

pH value : 6.5 - 8.5

Direction of rotation : Anti clockwise when viewed from the delivery side of the pump

#### **Others**

• Performance values given are subject to change in accordance with prevailing voltage and frequency conditions.

- Head values given in the performance charts are exclusive of pipe friction and fitting losses. These losses need to be taken into account while calculating the actual total head before selecting a suitable pump set.
- All performance values given are based on a suction head of 6 metres.
- In view of continuous improvements on existing products, information and performance values given in the catalogue are subject to change without notice.

Note: Shaded figures in the chart indicate the recommended operating range.



# Single Phase Vertical Jet Monoblocs - HCSJ / TSJ





#### PRODUCT FEATURES

- Designed to operate at very low voltage.
- Easy installation and simple maintenance.
- Can be installed near the borewell or offset in an adajacent building without separate pump house.
- Silent operation and steady flow of water.
- Pressure valve for easy adjustment of pump output matching with the borewell yield.
- Choice of different jetp units for varying depths and discharges.
- Easily accessable for servicing and overhaul.
- Dynamic balancing of rotor and impellers ensures vibration free performance and longer bearing life.
- Squirrel cage motor of TEFC type designed to operate in a wide range of voltage variation 180 240 V, 50 Hz, AC power supply.

#### MATERIAL OF CONSTRUCTION

Part Name	Material	Part Name	Material
Impeller	CI FG 200 / Gunmetal	Mechanical seal	Carbon / Ceramic
Casing	CI FG 180	Motor body	CI FG 180
Sleeve	AISI 410 (1.5 hp)	Shaft	45C8 / AISI 410
Flanges	CI FG 180	Winding wire	Enameled copper

#### **APPLICATIONS**

Pumping water from deep borewell for water supply to houses | Residential colonies | Factories | Multistoried buildings and apartments.



### PERFORMANCE CHART

#### TARO "HCSJ SERIES" - SINGLE PHASE SIDE MOUNTED TYPE VERTICAL JET MONOBLOCS

Approximate performance values HCSJ series at 220 V (-15% to +6%), 2900 rpm, 50 Hz AC power supply

	Mo	otor	F	Pipe Siz	е						DEPTH	TO LO	W WAT	ER LE	VEL /	SUCTIO	N LIFT					Dis.
Model Name	Rat	ting		(mm)		Metr	es g	1	2	15	18	21	24	27	30	33	36	39	42	45	50	Head
	kW	HP	Suc.	Pr.	Del.	Fee	t 30	3	9	49	59	69	79	89	98	108	118	128	138	148	164	(m)
HCSJ 4032 S	0.37	0.5	30	25	25	1	39	5 28	.2	20.6	15.4	11.6										15
HCSJ 7031 ⊠	0.75	1	25	20	25					21.3	17.1	13.3	9.6									25
HCSJ 7042 R ⊠	0.75	1	30	25	25								14.4	12.8	11.2	9.7	8.1	6.6				25
HCSJ 7042 RS	0.75	1	30	25	25	IN L/M							14.4	12.8	11.2	9.7	8.1	6.6				25
HCSJ 7032 S/GS	0.75	1	30	25	25	E VALUE						20.1	17.3	14.9	12.6	10.5	8.3	6.2				25
HCSJ 7032 RS	0.75	1	30	25	25	DISCHARGE VALUES						19.9	16.3	13.3	10.8	8.7	6.9					25
HCSJ 7002 RS	0.75	1	30	25	25					29.7	29.4	29.0	28.6	28.1	27.7	27.0	26.3	25.2				25
HCSJ 7014 RS ⊠	0.75	1	40	30	25		62	0 51	.5	42.0	33.0	24.5	18.5									20
HCSJ 9032 S	1.1	1.5	30	25	25										14.2	12.3	10.5	8.8	7.4	6.1		30

#### TARO "TSJ SERIES" - SINGLE PHASE BORE MOUNTED TYPE VERTICAL JET MONOBLOCS

Approximate performance values TSJ series at 220 V (-15% to +6%), 2900 rpm, 50 Hz AC power supply

	Mo	otor		Pipe Siz	е					DEPTH	TO LO	W WAT	ER LE	/EL / \$	SUCTIO	N LIFT					Dis.
Model Name	Rat	ting		(mm)		Metres	9	12	15	18	21	24	27	30	33	36	39	42	45	50	Head
	kW	HP	Suc.	Pr.	Del.	Feet	30	39	49	59	69	79	89	98	108	118	128	138	148	164	(m)
TSJ 532	0.37	0.5	30	25	25	1	39.7	28.3	20.7	15.5	11.7										
TSJ 1032 ▲	0.75	1	30	25	25	N N					19.7	16.6	13.9	11.3	8.7	6.1					25
TSJ 1032 / R	0.75	1	30	25	25	SE VALUES					19.7	16.6	13.9	11.3	8.7	6.1					25
TSJ 1542 ⊠	1.1	1.5	30	25	25	DISCHARGE						·				9.2	8.2	7.4	6.7	5.7	30
TSJ 1532	1.1	1.5	30	25	25	]								13.9	12.1	10.4	8.8	7.4	6.1		30

Performance confirming to IS: 12225 and 996

G - Gunmetal impeller

♣ - ISI marked sets■ - Against batch order

S - Square casing

PRODUCT TYPE KEY

 $\underline{H\ C\ S\ J\ 70\ 3\ 1} - \underline{H\ igh\ speed\ \underline{C}\ apacitor\ start\ \underline{S}\ ingle\ phase\ \underline{J}\ et\ pump\ (\underline{70}\ -\ Power\ code,\ \underline{3}\ -\ Ventury\ type,\ \underline{1}\ -\ 3"\ (75mm)\ borewell)$ 

 $\underline{HCSJ7032GS} - \underline{High} speed \underline{C} a pacitor start \underline{Single} \ phase \underline{Jet} \ pump \ (\underline{70} - Power code, \underline{3} - Ventury \ type, \underline{2} - 4" \ (100mm) \ borewell) \underline{G} unmetal \ impeller \underline{Square} \ casing$ 

 $\underline{HCSJ7014RS} - \underline{High} \text{ speed Capacitor } \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - Standard, \underline{Square casing} \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{4} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - 4\%" (110mm) borewell) } \underline{R} - \underline{Start} \text{ Single phase } \underline{Jet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code, \underline{1} - Ventury type, \underline{1} - Yet pump (70 - Power code,$ 

 $\underline{T} \, \underline{S} \, \underline{J} \, \underline{15} \, \underline{3} \, \underline{2} \, - \underline{T} \text{aro high speed } \underline{S} \text{ingle phase } \underline{J} \text{et pump } (\underline{15} \, - \, Power code, \underline{3} \, - \, J \text{et unit type, } \underline{2} \, - \, 4^{\text{\tiny{II}}} \, (100 \text{mm}) \, \text{borewell})$ 



# Single Phase Horizontal Jet Monoblocs - HCSJ / TDSJ / HCS - SJ



#### PRODUCT FEATURES

- Easy installation and low operating cost.
- TDSJ can also be installed vertically.
- Designed to operate at very low voltage.
- Easy installation and simple maintenance.
- Can be installed near the borewell or offset in ans adjacent building without separate pump house.
- Pressures valve for easy adjustment of pump output matching with the borewell yield.

- Silent operation and steady flow of water.
- Choice of different jetp units for varying depths and discharges.
- Easily accessable for servicing and overhaul.
- Dynamic balancing of rotor and impellers ensures vibration free performance and longer bearing life.
- Squirrel cage motor of TEFC type designed to operate in a wide range of voltage variation 180 240 V, 50 Hz, AC power supply.

#### MATERIAL OF CONSTRUCTION

Part Name	Material	Part Name	Material
Impeller	CI FG 200 / Gunmetal	Mechanical seal	Carbon / Ceramic
Casing	CI FG 180	Motor body	CI FG 180
Sleeve	AISI 410 (1.5 hp)	Shaft	45C8 / AISI 410
Flanges	CI FG 180	Winding wire	Enameled copper

#### **APPLICATIONS**

Pumping water from deep borewell for water supply to houses | Residential colonies | Factories | Multistoried buildings and apartments.



### PERFORMANCE CHART

#### TARO "HCSJ SERIES" - SINGLE PHASE HORIZONTAL JET MONOBLOCS

Approximate performance values HCSJ series at 220 V (-15% to +6%), 2900 rpm, 50 Hz AC power supply

Model Name	Mo	tor	F	Pipe Size	е					DEPTH	T0 L0	W WAT	ER LE	/EL / \$	SUCTIO	N LIFT					Dis.
	Rat	ing	(mm)			Metres	12	15	18	21	24	27	30	33	36	39	42	45	47	50	Head
	kW	HP	Suc.	Pr.	Del.	Feet	39	49	59	69	79	89	98	108	118	128	138	148	154	164	(m)
HCSJ 8032-R	1.1	1.5	30	25	25	DISCHARGE VALUES IN L/M							9.7	8.1	6.5	5.0					24

#### TARO "TDSJ SERIES" - SINGLE PHASE DOUBLE STAGE HORIZONTAL / BORE MOUNTED JET MONOBLOCS

Approximate performance values TDSJ series at 220 V (-15% to +6%), 2900 rpm, 50 Hz AC power supply

	Mo	otor	F	Pipe Siz	е					DEPTH	TO LO	W WAT	ER LE	/EL / :	SUCTIO	N LIFT					Dis.
Model Name	Rat	ting	(mm)			Metres	21	24	27	30	33	36	39	42	45	50	55	60	65	70	Head
	kW	HP	Suc.	Pr.	Del.	Feet	69	79	89	98	108	118	128	138	148	164	180	197	213	230	(m)
TDSJ 1042	0.75	1	30	25	25	ARGE IN L/M				12.4	10.7	9.1	7.5	6.0	4.6						12
TDSJ 1542	1.1	1.5	30	25	25	DISCHAF VALUES IN							10.3	9.8	9.2	8.0	6.7	5.5	4.4		15

#### TARO "HCS-SJ SERIES" - SINGLE PHASE SHALLOW WELL JET MONOBLOCS

Approximate performance values of HCS-SJ series at 220 V (-15% to +6%), 2900 rpm, 50 Hz AC power supply

	Mo	tor		pe ze											1	OTAL	. HEA	D VA	LUES										
Model Name	Rat	ing	_	im)	Metres	6	8	10	12	14	16	18	19	20	21	22	23	24	25	26	27	28	29	30	32	33	34	36	40
	kW	HP	Suc.	Del.	Feet	20	26	33	39	46	52	59	62	66	69	72	75	79	82	85	89	92	95	98	105	108	112	118	131
HCS 4025 SJ	0.37	0.5	25	l	< =		43.0	42.7	42.3	41.9	41.5	41.0	40.6	40.1	39.5	38.7	37.6	36.0	33.7	30.9	27.6	24.1	20.6	17.1	10.6				
HCS 7025 SJ / GC	0.75	1	25	25	DISCH	45.1	44.8	44.5	44.3	44.1	43.9	43.7	43.6	43.5	43.4	43.3	43.0	42.6	42.0	41.2	40.0	38.4	36.4	33.8	27.6	24.3	20.9	13.5	

Performance confirming to IS: 12225 and 996  $\,$ 

#### PRODUCT TYPE KEY

 $\underline{HCSJ8032R} - \underline{High} \ speed \ \underline{C} \ apacitor \ start \ \underline{S} \ ingle \ phase \ \underline{Jet} \ pump \ (\underline{80} - Power \ code, \underline{3} - Ventury \ type, \underline{2} - 4" \ (100mm) \ borewell) \ \underline{R} - Standard \ delta \ \underline{M} - \underline{M} \ delta \ delta \ \underline{M} - \underline{M} \ delta \ delt$ 

 $\underline{\textbf{T} \, \underline{\textbf{D} \, \underline{\textbf{S}} \, \underline{\textbf{J}} \, \underline{\textbf{10}} \, \underline{\textbf{42}} \, - \underline{\textbf{T}} \text{aro} \, \underline{\textbf{D}} \text{ouble stage high speed} \, \underline{\textbf{S}} \text{ingle phase} \, \underline{\textbf{J}} \text{et pump} \, (\underline{\textbf{10}} \, - \, \underline{\textbf{Power code}}, \underline{\textbf{4}} \, - \, \underline{\textbf{J}} \text{et unit type}, \underline{\textbf{2}} \, - \, \underline{\textbf{4}} \, " \, (100 \text{mm}) \, \text{borewell}) \, \underline{\textbf{M}} \, \underline{\textbf$ 

 $\underline{H}\,\underline{C}\,\underline{S}\,\underline{40}\,\underline{25}\,\underline{SJ}\,-\,\underline{H}\underline{igh}\,speed\,\underline{C}apacitor\,start\,\underline{S}\underline{ingle}\,phase\,monobloc\,(\underline{40}\,-\,Power\,code,\underline{25}\,-\,Del.\,size)\,\underline{S}hallow\,well\,\underline{J}\underline{et}$ 

 $\underline{H\ C\ S\ 70\ 25\ SJ\ GC} - \underline{H\ igh}\ speed\ \underline{C}\ apacitor\ start\ \underline{S}\ ingle\ phase\ monobloc\ (\underline{70}\ -\ Power\ code, \underline{25}\ -\ Del.\ size)\ \underline{S}\ hallow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ phase\ monobloc\ (\underline{70}\ -\ Power\ code, \underline{25}\ -\ Del.\ size)\ \underline{S}\ hallow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ phase\ monobloc\ (\underline{70}\ -\ Power\ code, \underline{25}\ -\ Del.\ size)\ \underline{S}\ hallow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ phase\ monobloc\ (\underline{70}\ -\ Power\ code, \underline{25}\ -\ Del.\ size)\ \underline{S}\ hallow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ phase\ monobloc\ (\underline{70}\ -\ Power\ code, \underline{25}\ -\ Del.\ size)\ \underline{S}\ hallow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ phase\ \underline{S}\ ballow\ well\ \underline{J}\ et\ \underline{G}\ unmetal\ impeller\ \underline{C}\ l\ Casing\ unmetal\ \underline{J}\ un$ 



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