

PRAKASH

Quality, Reliability, Life

Sewage Cutter Pump



Applications

- Scum pumping at waste water treatment plant
- Municipal projects
- Industrial packaged pump station
- Home and domestic application (Special for kitchen)
- Pumping agricultural manure (dairy, hog and poultry)

Application Limits

- Water temperature up to 40°C
- PH : 4 to 10
- Maximum Density of trans medium is $1.2 \times 10^3 \text{ kg/m}^3$
- Viscosity of trans medium is 7×10^{-7} - $23 \times 10^{-6} \text{ m}^2/\text{s}$
- Maximum immersion depth: 5m to 10m

Performance Range

- Capacity : up to $25 \text{ m}^3/\text{hr}$
- Head : up to 42m
- Power : 0.75 - 5.5Kw
- Speed : 2900 RPM

Motor Details

- Insulation class : F
- Protection class : Ip68
- Duty : S1
- Power : 0.75kW-5.5 kW
- Power supply : Single phase $220\text{v} \pm 10\%$, 50Hz
- Three Phase $380\text{v} \pm 10\%$, 50Hz
- Cable Length: 6mtr & 8mtr

Feature and Benefits

Sewage cutter pump is design to handle large concentration of solids and/or tougher solids that conventional sewage pumps cannot handle. It provides clog-free operation by macerating those solids that might clog other types of submersible pumps.

Installation and use

Submersible pump with cutter is an ideal machine for draining sewage. A high-speed rotating cutter is assembled at the inlet hole of the pump, make it easy to cut off long-fiber and firm sundries contained in the sewage, so as to avoid the impeller is blocked by the entanglement.

The protector in the motor can automatically cut off the power when it overheated or overloaded, thus guarantee the security and reliability of pump's running even in the atrocious environment.

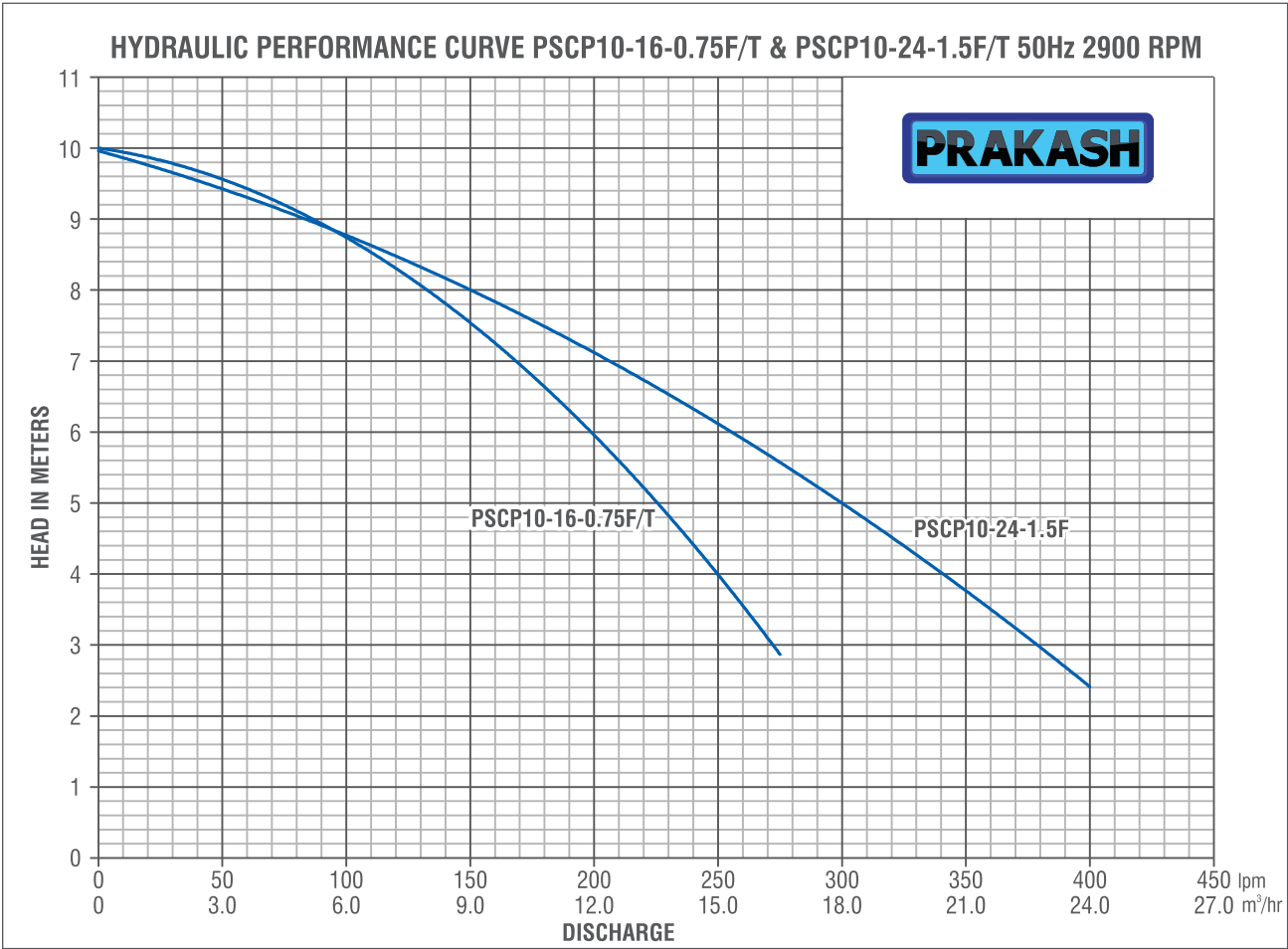
Pump Selection Chart

Model	Power		Voltage	Speed (RPM)	Outlet (Inch)	Guide Rail	Maximum		N.W. KG
	KW	HP					Flow M3/h	Head Mtr	
PSCP10-16-0.75F	0.75	1	220-240v	2900	2"	NO	16.5	10	21.7
PSCP10-16-0.75T	0.75	1	380-420v		2"	NO	16.5	10	19.7
PSCP10-24-1.5F	1.5	2	220-240v		2.5"	NO	24	10	28.5
PSCP10-24-1.5T	1.5	2	380-420v		2.5"	NO	24	10	27.1
PSCP18-18-1.5	1.5	2	380-420v		1.5"	40-40	18	18	28.5
PSCP22-18-1.5F	1.5	2	220-240v		2"	50-50	18	22	28.5
PSCP26-20-2.2	2.2	3	380-420v		2"/1.5"	50-50	20	26	38.5
PSCP30-25-4.0	4	5.5	380-420v		2"	50-50	25	30	52
PSCP42-25-5.5	5.5	7.5	380-420v		2"	50-50	25	42	67.8

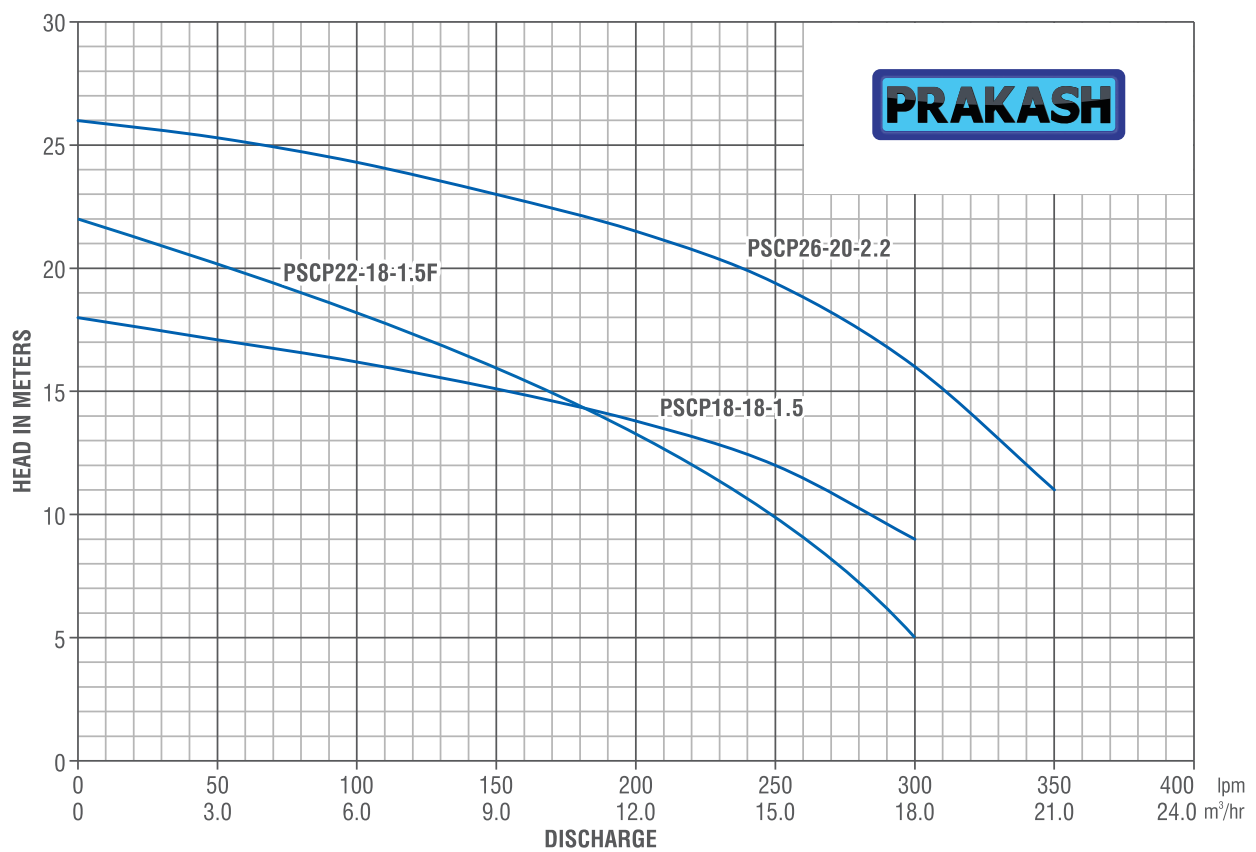
Performance Chart

MODEL	Power		Volts	Outlet (Inch)	Q	US GPM	0	7	13	20	26	33	40	46	53	59	66	73
	KW	HP				M³/H	0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5
						LPM	0	25	50	75	100	125	150	175	200	225	250	275
PSCP10-16-0.75F	0.75	1	220	2	H (m)		10	9.9	9.4	9.0	8.5	8.0	7.4	6.9	6.0	5.2	4.0	2.5
PSCP10-16-0.75T	0.75	1	380	2			10	9.9	9.4	9.0	8.5	8.0	7.4	6.9	6.0	5.2	4.0	2.5

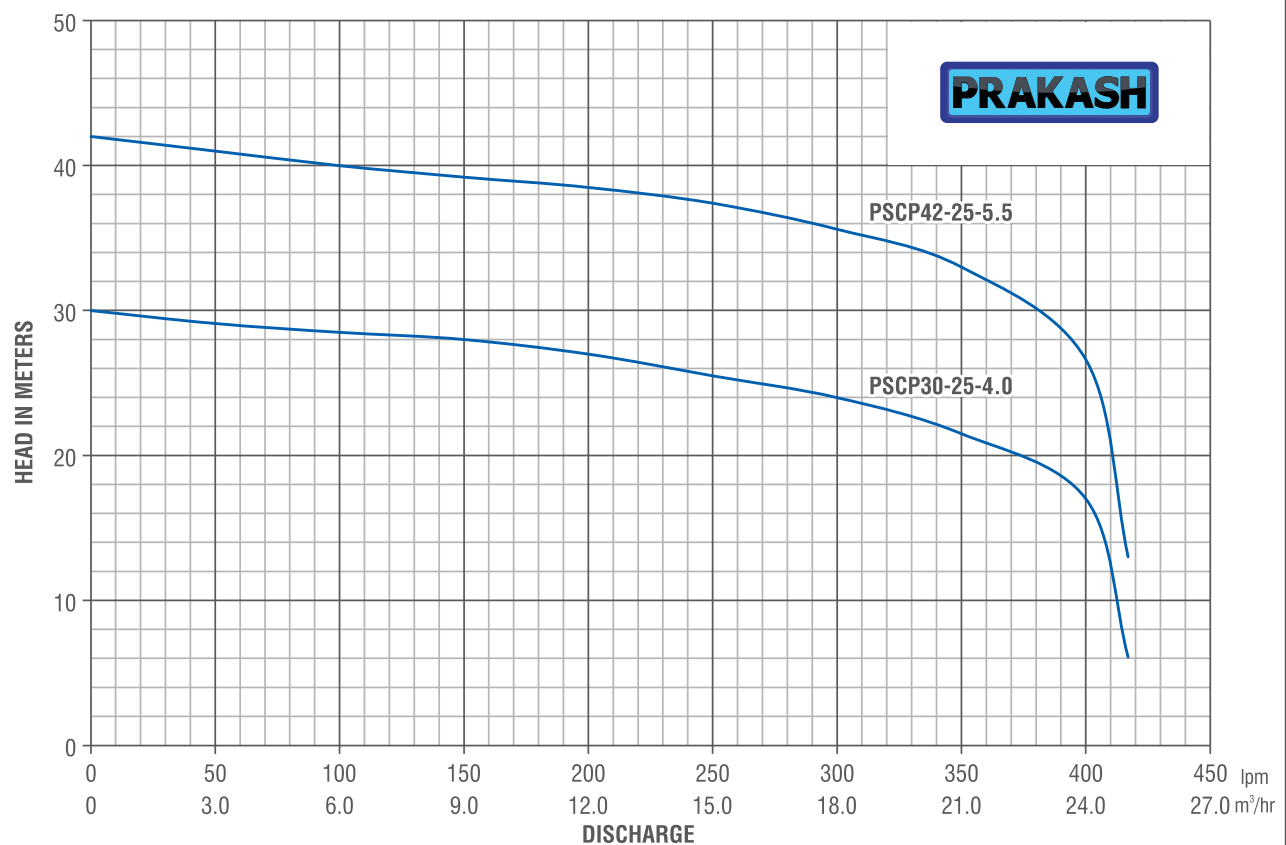
MODEL	Power		Volts	Outlet (Inch)	Q	US GPM	0	13	26	40	53	66	79	92	106	110
	KW	HP				M³/H	0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	25.0
						LPM	0	50	100	150	200	250	300	350	400	417
PSCP10-24-1.5F	1.5	2	220	2.5	H (m)		10	9.2	8.6	8.0	7.2	6.0	4.8	3.8	2.3	
PSCP10-24-1.5T	1.5	2	380	2.5			10	9.2	8.6	8.0	7.2	6.0	4.8	3.8	2.3	
PSCP18-18-1.5	1.5	2	380	1.5			18	17.1	16.2	15.1	13.8	12	9			
PSCP22-18-1.5F	1.5	2	220	2			22	20	18	16	13.5	10	5			
PSCP26-20-2.2	2.2	3	380	2/1.5			26	25.3	24.3	23	21.5	19.4	16	11		
PSCP30-25-4.0	4	5.5	380	2			30	29.1	28.5	28	27	25.5	24	21.5	17	6.1
PSCP42-25-5.5	5.5	7.5	380	2			42	41	40	39.2	38.5	37.4	35.6	33	26.6	13



HYDRAULIC PERFORMANCE CURVE PSCP18-18-1.5, PSCP22-18-1.5F & PSCP26-20-2.2 50Hz 2900 RPM

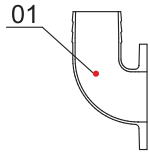


HYDRAULIC PERFORMANCE CURVE PSCP30-25-4.0 & PSCP42-25-5.5 50Hz 2900 rpm

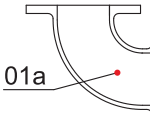


SECTIONAL VIEW (PSCP18-18-1.5, PSCP26-20-2.2, PSCP30-25-4.0, PSCP42-25-5.5)

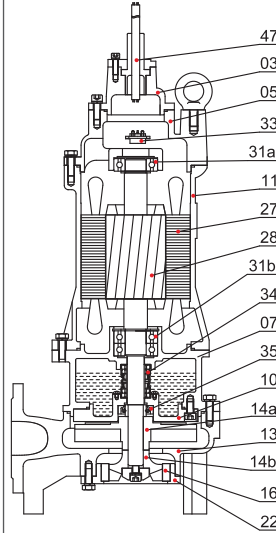
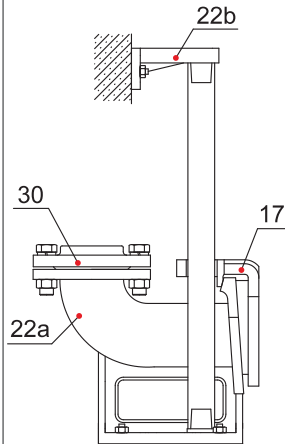
Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation (Y)



Auto-Coupled Installation (Z)



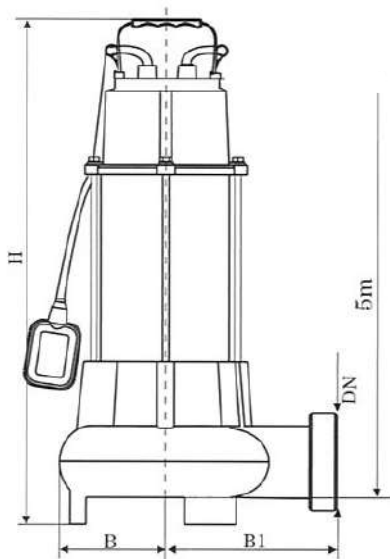
Materials of Construction

Item No.	Part name	Material
01	Hose coupling	Cast iron
01a	Hose coupling	Cast iron
03	Terminal box	Cast iron
05	Upper cover	Cast iron
07	Bearing house	Cast iron
10	Seal bracket	Cast iron
11	Motor body	Cast iron HT200
13	Pump body	Cast iron HT200
14a	Impeller	Ductile iron
14b	Rotational blade	High chrome alloy
16	Stationary Blade	High chrome alloy
17	Coupling adapter	Cast iron
22	Seat assembly	Cast iron
22a	Coupling seat	Cast iron
22b	Upper guide support	Cast iron
27	Stator	
28	Rotor	Shaft: AISI304SS
30	Flange	Cast iron
31a	Bearing	Ball bearing
31b	Bearing	Ball bearing
33	Motor protector	
34	Mechanical seal	Sic-Sic/Carbon-Ceramic
35	Oil seal	
47	Cable	PVC/Copper

Materials of Construction (MOC)

Parts Name	PSCP10-16-0.75F	PSCP10-16-0.75T	PSCP10-24-0.75F	PSCP10-24-0.75T	PSCP22-18-1.5F
Motor Housing	SS	SS	SS	SS	SS
Mechanical Seal	Graphite/Ceramics		Graphite/Ceramic	Graphite/Ceramic	Graphite/Ceramic
Impeller	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Pump Casing	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron

G.A. Drawing



Dimension

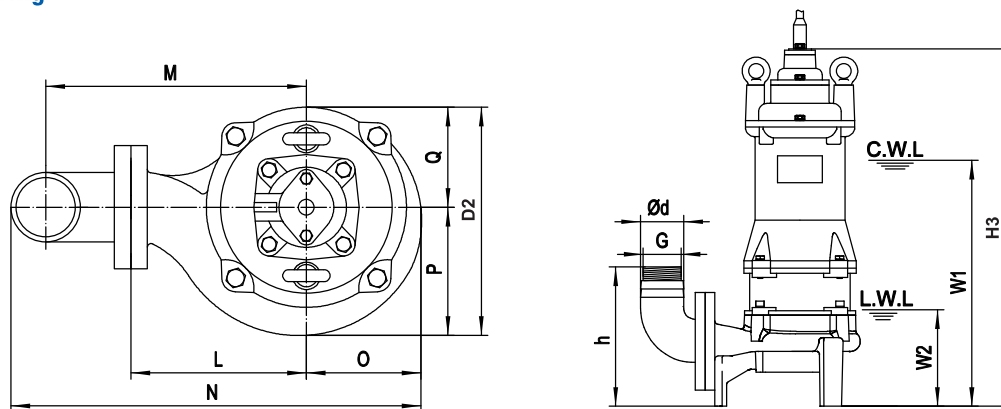
	PSCP10-16-0.75F/T	PSCP10-24-1.5F/T	PSCP22-18-1.5F
DN	G2"	G2.5"	G2"
B	100	93	275(B+B1)
B1	145	193	
H	477	496	552

With Scissor Cutting System Submersible Sewage Pump

Sewage Cutter Pump

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G.A. Drawing



C.W.L. : Continuous running water level
L.W.L. : Lowest running water level

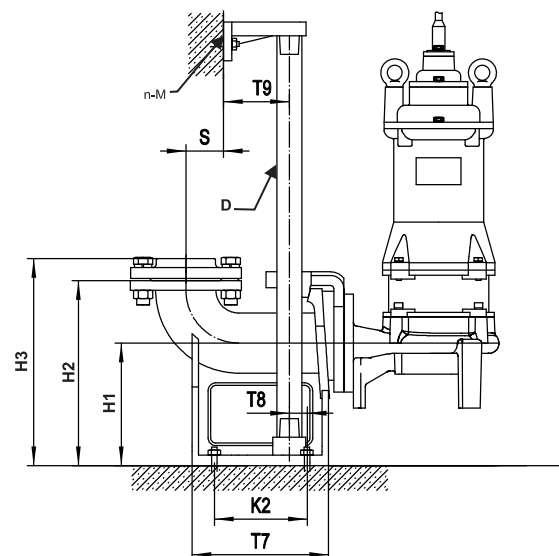
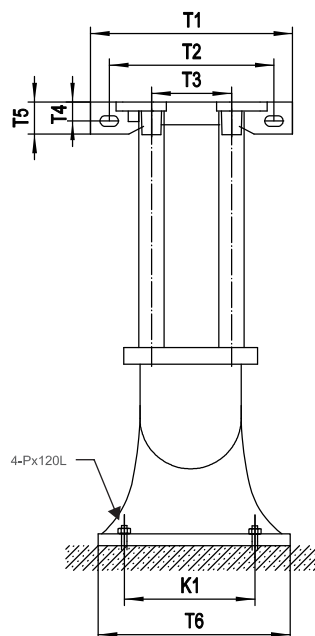
Dimension

MODEL	Ød	G	h	W1	W2	H3	O	P	Q	L	D2	M	N
PSCP18-18-1.5	40	-	165	335	125	475	82	85	80	130	165	193	295
PSCP26-20-2.2	50	G1½	170	375	125	545	95	100	100	150	200	210	325
PSCP30-25-4.0	50	G1½	205	405	125	610	100	105	100	155	205	220	345
PSCP42-25-5.5	50	G1½	200	440	125	635	110	115	105	160	220	225	360

Sewage Cutter Pump Guide Rail System Details



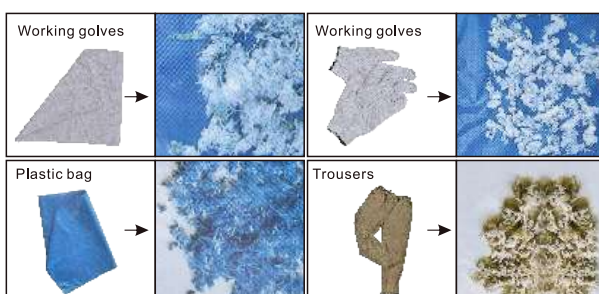
A: Flange size of pump



Guide Rail Dimension

MODEL	T1	T2	T3	T4	T5	T6	T7	T8	T9	K1	K2	S	H1	H2	H3	D	n-M	P	A
40-40	225	185	70	18	35	110	140	4	65	65	70	60	115	195	219	25	2-M10x40	M16	Ø100/4-Ø14
50-50	265	215	105	25	42	200	215	13	67	165	135	63	160	250	276	25	2-M10x40	M16	Ø110/4-Ø10

Grinding Capacity of Pumps



With Scissor Cutting System Submersible Sewage Pump



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Office in India

PRAKASH PUMP

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