# **D66 Series**

Maximum Flow Rate:62.5 gpm (236.6 l/min) 2142 BPDMaximum Pressure:1000 psi (69 bar) for Metallic Pump Head250 psi (17 bar) for Non-metallic Pump Heads



D66 with Brass pump head and SAE flanged ports.



D66 with Brass pump head and threaded ports.





D66 with Stainless Steel pump head.

D66 with Polypropylene pump head.

# **D66 Series Performance**

### Capacities

Flow	Max. Input	Max. Flow @ 1000 psi (69 bar)			
Model	rpm	gpm	l/min	BPD	
D66-X	1000	62.5	236.6	2142	

### Pressure

Maximum Inlet Pressure

Metallic Pump Heads: 250 psi (17 bar) Non-metallic Pump Heads: 50 psi (3.4 bar)

#### **Maximum Discharge Pressure**

Metallic Pump Heads: 1000 psi (69 bar) Non-metallic Pump Heads: 250 psi (17 bar)

Performance and specification ratings apply to D66 configurations unless specifically noted otherwise.



#### **Maximum Flow at Designated Pressure**



# **D66 Series Specifications**

Flow Capacities @ 25	0 psi (17 ba	ır)					
Model	rpm	gpm	l/min	BPD			
D66-X (Non-metallic)	1000	66.9	253.2	2293			
Flow Capacities @ 50	0 psi (34 ba	ır)					
Model	rpm	gpm	l/min	BPD			
D66-X (Metallic)	1000	65.0	246.1	2228			
Flow Capacities @ 100	00 psi (69 b	oar)					
Model	rpm	gpm	l/min	BPD			
D66-X (Metallic)	1000	62.5	236.6	2142			
Delivery @ 250 psi (1	7 bar)						
Model	gal/rev	/rev liters/rev					
D66-X (Non-metallic)	0.0669	0	.253				
Delivery @ 500 psi (3	4 bar)						
Model	gal/rev	lite	rs/rev				
D66-X (Metallic)	0.0650	0	.246				
Delivery @ 1000 psi (	(69 bar)						
Model	gal/rev	lite	rs/rev				
D66-X (Metallic)	0.0625	0.237					
Maximum Discharge P	ressure						
Metallic Heads:	1000	1000 psi (69 bar)					
Non-metallic Heads:	250 ps	250 psi (17 bar)					
Maximum Inlet Pressu	re Metalli	Metallic Heads: 250 psi (17 bar)					
	Non-m	Non-metallic Heads: 50 psi (3.					
Maximum Operatina T	emperature			/			
Metallic Heads:	200°I	200°F (93.3°C) - Consult factory for correct					
	compo	component selection for temperatures from 160° F					
	(71°C	c) to 200°F	(93.3°C).				
Non-metallic Heads:	120°I	120°F (49°C) - Consult factory for temperatures					
	above	above 120°F (49°C).					
Maximum Solids Size	800 m	nicrons					
Inlet Port	3 inch	3 inch NPT (Metallic)					
	2-1/2	2-1/2 inch SAE J518 Flange (Non-metallic)					
	3 inch	3 inch SAE J518 Flange (Metallic)					
Discharge Port	1-1/2	1-1/2 inch NPT					
	1-1/2	1-1/2 inch SAE					
Shaft Diameter	2 inch	(50.8 mm)					
Shaft Rotation	Revers	Reverse (bi-directional)					
Bearings	Tapere	Tapered roller bearings					
Oil Capacity	11 US	11 US quarts (10.4 liters)					
Weight							
Metallic Heads:	400 lb	os. (181 kg)					
Non-metallic Heads:	275 lb	275 lbs. (125 kg)					

#### **Net Positive Suction Head (NPSHr)**



#### **Suction Lift:**

Each Hydra-Cell pump has different lift capability depending on model size, cam angle, speed, and fluid characteristics. To ensure that your specific lift characteristics are met, refer to the inlet calculations regarding friction, and acceleration head losses in your Hydra-Cell Installation & Service Manual. Compare those calculations to the NPSHr curves above.

#### **Calculating Required Power**

100 x rpm 63,000	+ gpm x psi 1,460	=	electric motor hp
100 x rpm 84,428	+ $\frac{l/\min x bar}{511}$	=	electric motor kW

When using a variable frequency drive (VFD) controller, calculate the hp or kW at minimum and maximum pump speed to ensure the correct hp or kW motor is selected. Note that motor manufacturers typically de-rate the service factor to 1.0 when operating with a VFD.

#### **Calculating Pulley Size**

motor pulley $OD$	=	pump pulley OD		
pump rpm		motor rpm		

# **D66 Series Representative Drawings**

### D66 Models with SAE Flange Inlet/Outlet Ports Inches (mm)



Metallic pump head models shown.

## D66 Models with SAE Flange Inlet/Outlet Ports Inches (mm)



Non-metallic pump head models shown.

# **D66 Series Representative Drawings**

### D66 Models with NPT Flange Inlet/Outlet Ports Inches (mm)





Metallic pump head models shown.

# **D66 Series How to Order**

Order

Hastelloy C

#### **Ordering Information** Χ D A complete D66 Series Model Number contains 12 digits including 8 customer-specified design and materials options, for example: D66XKSGHFHMH.

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Digit	Code	Description	Digit	Code	Description
-3		Pump Configuration	11		Valve Spring Retainers
	D66	Shaft-driven		C	Celcon
		Hydraulic End Cam		Μ	PVDF
	Х	Max. 62.5 gpm (236.6 l/min) 2142 BPD @ 1000 rpm	12		Hydra-Oil
5		Pump Head Version		C	EPDM-compatible oil
	K	Advanced Diaphragm Position Control (ADPC) NPT Ports (metallic heads only)		H	15W50 high-temp severe-duty synthetic oil
	E	Advanced Diaphragm Position Control (ADPC) SAE Flanged Ports	Consult the Hydra-Cell Master Catalog		
6		Pump Head Material	TOr:		
	В	Brass	• Mot	tors, bases, c	couplings and other pump accessories
	C	Ductile Iron (Nickel-plated)	Hydra-Oil selection and specification information		
	G	Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)	<ul> <li>Design considerations, installation guidelines, and other technical assistance in pump selection</li> </ul>		
	Ν	Polypropylene (with Hastelloy C followers & follower screws) – SAE only			
	Ρ	Polypropylene (with 316 SST followers & follower screws) – SAE only			
	S	316L Stainless Steel			
		Diaphragm & O-ring Material			
	Е	EPDM (used with metallic heads only)			
	R	EPDM (used with non-metallic heads only)		QUIC	CK & DISCOUNTED PRICING
	G	FKM (used with metallic heads only)			CLICK HERE
	н	FKM (used with non-metallic heads only)		0	R CALL (908) 362-9981
	т	Buna-N (used with metallic heads only)			
	U	Buna-N (used with non-metallic heads only)			
		Valve Seat Material			
	Н	17-4 Stainless Steel			
	Ν	Nitronic 50			
	т	Hastelloy C			
		Valve Material			
	F	17-4 Stainless Steel			
	Ν	Nitronic 50			
	т	Hastelloy C			
10		Valve Springs			
	Е	Elgiloy			
	н	17-7 Stainless Steel			
	т	Hastellov C			