



OBERDORFER®

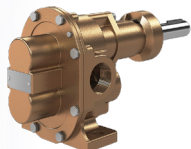
Pump Selection Charts

MATERIALS OF CONSTRUCTION / OPTIONS

**METRIC
VERSION**



**Bronze
Rotary
Gear Pumps**



**Centrifugal
Pumps**



**Flexible
Impeller
Pumps**



**Chemsteel®
Stainless Steel and
Alloy C Pumps**





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Pump Selection Chart Flyer

BRONZE ROTARY GEAR PUMPS



				DIFFERENTIAL	3.50 BAR		7.00 BAR		10.50 BAR	
Pump Models			Ports	Nominal Flow	Flow	Power	Flow	Power	Flow	Power
Pedestal	Close Coupled	Carbonator	mm	m3/hr	m3/hr	kW	m3/hr	kW	m3/hr	kW
	OBN999	OBN95	6	0.23	0.20	0.07	0.14	0.11	0.09	0.16
OBN1000	OBN991	OBN91, OBN61K, OBN91K	6, 9	0.45	0.41	0.13	0.34	0.21	0.27	0.29
OBN2000	OBN992	OBN9206	6, 9	0.90	0.79	0.19	0.68	0.32	0.57	0.51
OBN3000	OBN993		12	1.82	1.50	0.54	1.36	0.82	1.25	1.04
OBN4000	OBN994		12	2.27	2.27	0.82	2.13	1.33	2.04	1.72
OBN7000	OBN970		18	4.54	4.29	1.19	4.09	2.01	3.95	2.68
OBN9000	OBN990		25	5.22	5.06	1.27	4.84	2.01	4.56	2.76
OBN9000(R)SX			32	6.13	5.90	1.49	5.79	2.39	5.68	3.28
	OBN1100		32	9.08	7.95	1.49	6.81	2.39	5.68	3.73
OBN11500, OBN11HD			32	13.63	12.72	2.98	11.58	4.47	Intermittent Operation Above 900 RPM	
	OBN1300		38	13.63	12.72	2.98	11.58	4.10		
OBN13500, OBN13HD			38	19.30	19.08	4.77	18.40	7.01		
OBN26HD			51	38.61	38.38	9.69	37.02	14.17		

*Performance is based on 1725 RPM, Water @ 1 cPs, 68° F (20° C)

Viscosity vs. RPM Limitations					Horsepower Multiplier based on Viscosity					
Liquid @ 70°F	C.P.	C.S.	S.S.U.	RPM	0.14 Bar	1.38 Bar	2.76 Bar	4.14 Bar	5.52 Bar	6.90 Bar
Water	1	1	5	1750	1	1	1	1	1	1
	9	11	50	1750	1	1.05	1	1	1	1
No. 2 Fuel Oil @ 57°F lowest 1800 RPM option	17	22	100	1700	1.1	1.1	1.05	1.05	1	1
	43	54	250	1600	1.2	1.15	1.1	1.1	1.05	1.05
SAE 10 Oil @ 62°F	86	108	500	1500	1.3	1.25	1.2	1.15	1.1	1.1
	130	162	750	1400	1.45	1.35	1.25	1.2	1.15	1.15
SAE 30 Oil @ 72°F lowest 1200 RPM option	173	216	1000	1300	1.6	1.5	1.4	1.3	1.25	1.2
	432	540	2500	1200	1.9	1.75	1.6	1.45	1.35	1.3
SAE 60 Oil @ 70°F	864	1080	5000	1000	2.2	2	1.8	1.6	1.5	1.4
	1296	1620	7500	850	2.6	2.3	2	1.8	1.7	1.6
SAE 70 Oil @ 60°F	1728	2160	10000	600	3	2.6	2.2	2	1.9	1.8
	4320	5400	25000	500	3.5	3	2.7	2.4	2.2	2
No. 6 Fuel Oil @ 70°F	8640	10800	50000	400	4	3.6	3.2	2.8	2.5	2.2
	12960	16200	75000	300	4.5	4.1	3.6	3.15	2.75	2.35



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Pump Selection Chart Flyer

CENTRIFUGAL PUMPS



Standard End Suction			Ports	Max Capacity	Max Head		Max Speed
Pedestal	Close Coupled	Mat'l of Construction	mm	m3/hr	Feet	mH	RPM
OB50P		Bronze	9	2.04	35	5	4,000
OB60P		Bronze	18 x 13	5.68	68	21	4,000
OB70P		Bronze	32 x 25	24.98	92	28	4,000
OB81PB		Bronze	38 x 32	21.58	100	20	3,450
OB82PB		Bronze	38 x 32	22.71	115	35	3,450
OB83PB		Bronze	38 x 32	22.71	130	40	3,450
	OB101M	Bronze	9	2.04	25	8	3,450
	OB104M	Bronze	18 x 13	5.45	53	16	3,450
	OB107MB, MA	Bronze	32 x 25	7.95	50	15	3,450
	OB109MB	Bronze	32 x 25	17.03	45	13	3,450
OB119MP		Bronze	32 x 25	24.98	90	27	4,000
	OB170M	Bronze	18	2.73	17	5	3,450
	OB172B	Bronze	18	2.73	17	5	3,450
	OB500	Bronze	9	2.04	28	4	3,450
	OB600	Bronze	18 x 13	5.45	53	16	3,450
	OB700	Bronze	32 x 25	21.58	70	21	3,450
OB800B		Bronze	32 x 25	15.90	200	61	4,000
	OB815B	Bronze	38 x 32	22.71	95	29	3,450
OB815PB		Bronze	38 x 32	22.71	95	29	3,450
	OB820B	Bronze	38 x 32	22.71	120	36	3,450
	OB830B	Bronze	38 x 32	22.71	140	43	3,450

Self Priming			Ports	Max Capacity	Max Head		Max Speed	Max Lift
Pedestal	Close Coupled	Mat'l of Construction	mm	m3/hr	Feet	mH	RPM	meters
OB30PB	OB300B	Bronze	25	5.45	35	5	3,800	6.70
OB75PB	OB750B	Bronze	38	20.44	82	25	3,450	6.10



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Pump Selection Chart Flyer

FLEXIBLE IMPELLER PUMPS

Model	Ports	Max Capacity	Max Head		Max Speed
Pedestal	mm	m3/hr	mh	BAR	RPM
OBN200M	9	1.13	14.9	1.45	3,000
OB301M	19	4.77	24.7	2.41	3,450
OB401M	25	8.18	28.1	2.76	3,000
OB501M	31	13.17	31.7	3.10	1,750



Model	Ports	Max Capacity	Max Head		Max Speed	Mounting			
Flange	mm	m3/hr	mh	BAR	RPM	Flange	Cam	Shaft	Pilot
OB402M	31 Hose	8.18	24.4	2.41	3,000	Pulley			
OBN202M-908, OB837	13	2.73	17.7	1.72	3,500	Clamped			Male
OBN202M	13	2.73	17.7	1.72	3,500	2 bolt	Full	Slot	None
OBN202M-03	9	2.04	17.7	1.72	3,500	2 bolt	Half	Slot	None
OBN202M-07	9	2.73	17.7	1.72	3,500	2 bolt	Full	Slot	None
OBN202M-11	25 Hose	2.73	17.7	1.72	3,500	4 bolt	Full	Tang	Male
OBN202M-15	9	2.73	17.7	1.72	3,500	5 bolt	Full	Tang	Male
OBN202M-16	13	2.73	17.7	1.72	3,500	5 bolt	Full	Tang	Male
OBN202M-17	18 x 16	2.73	17.7	1.72	3,500	3 bolt	Full	Tang	Male
OBN202M-17P	18 x 16	2.73	17.7	1.72	3,500	2 bolt	Full	Tang	Male
OBN202M-21	13	2.73	17.7	1.72	3,500	4 bolt	Full	Round	Male
OBN202M-23	13	2.73	17.7	1.72	3,500	2 bolt	Full	Tang	Male
OBN202M-24	13	2.73	17.7	1.72	3,500	3 bolt	Full	Tang	Male

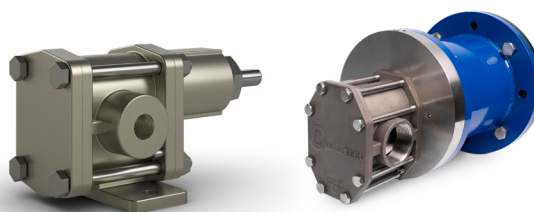
Model	Ports	Max Capacity	Max Head		Max Speed
Close-Coupled	mm	m3/hr	mh	BAR	RPM
OB209M	38 x 9	2.04	8.5	0.83	2,600
OB214M	38 x 9	2.95	21	2.07	3,450
OBN305M	18	2.95	24.4	2.41	1,200
OB405M-04	25	5.68	30.2	2.96	1,725
OB406M-04	38 x 25	5.68	30.2	2.96	1,725



OBERDORFER®

Chemsteel Pump

SELECTION GUIDE



SEAL-LESS MAG DRIVE		SEALED		FLOW	MAX FLOW	PORT
CODE	*METAL	CODE	*METAL	RATE CODE	m3/hr	SIZE mm
RM1	×	R1	×	02	0.11	6.35
	×		×	03	0.34	6.35
	×		×	04	0.45	12.70
	×		×	06	0.68	12.70
SM2	×	S2	×	07	0.91	12.70
	×		×	10	1.27	12.70
	×		×	14	1.82	12.70
SM4	×	S4	×	17	2.27	19.05
SM9	×	S9	×	23	3.41	38.10
	×		×	30	4.54	38.10
	×		×	35	5.22	38.10
	×		×	46	6.81	38.10

*316 SST or Alloy C Material option

CHEMSTEEL PUMP SELECTION

- ▶ Select the MAX FLOW required
- ▶ Determine whether you will need a SEAL-LESS Mag Drive or SEALED Pump....notate code
- ▶ Select FLOW Rate Code
- ▶ e.g. 0.45 m3/hr with a SEALED Pump CODE of R1 would have a FLOW Rate Code of 04....
Base Model: R104
- ▶ e.g. 4.54 m3/hr with a SEAL-LESS Mag Drive Pump CODE of SM9 would
Have a FLOW Rate Code of 30.... Base Model: SM930

This Selection will give you the Specification document for further discussion.

**OBERDORFER**

Chemsteel® Numbering System

Example

S20716CCB

- Additional Options
(Tandem, BSPT threads, Lower shaft, etc.)
- Shaft Seal Style, Materials
- Bearing Material Carbon Graphite
- Gear Material Combination W88
- Housing and Shaft Material 316 SS
- Flow Rate 07 (0.91 m³/hr @ 1725)
- Basic Pump Series S2

1. Basic Pump Series

SEAL-LESS MAG-DRIVE		SEALED	Flow Rate Code	Max Flow (0 bar) m ³ /hr
Code	Metal	Code		
RM1	X	R1	02	0.11
	X		03	0.34
	X		04	0.45
	X		06	0.68
SM2	X	S2	07	0.91
	X		10	1.27
	X		14	1.82
SM4	X	S4	17	2.27
SM9	X	S9	23	3.41
	X		30	4.54
	X		35	5.22
	X		46	6.81

2. Housing and Shaft Material

CODE	HOUSING MATERIAL	SHAFT MATERIAL
1	316 Stainless Steel	316 Stainless Steel
3	Alloy C	Alloy C

Teflon® is a registered trademark of DuPont, an equivalent fluoropolymer may be used
 Ryton® is a registered trademark of Chevron Phillips Chemical, an equivalent polyphenylenesulfide may be used
 Peek® is a registered trademark of Victrex, an equivalent polyetheretherketone may be used
 Grafoil® is a registered trademark of UCAR Carbon Technology, an equivalent may be used
 Viton® is a registered trademark of DuPont Dow Elastomers, an equivalent fluoroelastomer may be used
 Kalrez® is a registered trademark of DuPont Dow Elastomers, an equivalent perfluoroelastomer may be used
 Rulon® is a registered trademark of Saint-Gobain, an equivalent compounded PTFE based material may be used

3. Gear Material Combination

CODE	DRIVE	IDLE
1	RYTON®	RYTON®
2	316 SS	PEEK®
3	PEEK®	PEEK®
4	Alloy C	Alloy C
5	Alloy C	Teflon®
6	W88	W88
7	Teflon®	Teflon®
8	W88	Teflon®
9	Alloy C	PEEK®
A	Alloy C	RYTON®
B	316 Stainless Steel	RYTON®
C	W88	RYTON®
D	W88	316 Stainless Steel
E	316 Stainless Steel	316 Stainless Steel
F	316 Stainless Steel	Teflon®
H	W88	PEEK®

4. Bearing Material

CODE	MATERIAL
C	Carbon Graphite Resin
P	Teflon®
J	Rulon®

5. Shaft Seal

CODE	STYLE			MATERIAL			
				Rotary Head	Stationary Head		
	Design	Seals	Case	Face	Elastomer	Face	O-Ring
B	Bellows	Single	316	Carbon	Viton®	Ceramic	Viton®
J	Bellows	Single	316	Silicon Carbide	EPDM	Silicon Carbide	EPDM
H	Bellows	Double	316	Teflon®	Viton®	Ceramic	Viton®
Z	Bellows	Single	316	Silicon Carbide	Viton®	Silicon Carbide	Viton®
A	Wedge	Single	316	Carbon	Teflon®	Ceramic	Kalrez®
C	Wedge	Single	316	Carbon	Teflon®	Silicon Carbide	Kalrez®
D	Wedge	Single	Alloy C	Carbon	Teflon®	Ceramic	Kalrez®
F	Wedge	Single	Alloy C	Carbon	Teflon®	Silicon Carbide	Kalrez®
V	Wedge	Single	Alloy C	Silicon Carbide	Teflon®	Silicon Carbide	Kalrez®
G	Wedge	Double	316	Carbon	Teflon®	Silicon Carbide	Kalrez®
L	Two Lips Seals		304	Viton® Backed By Teflon®			
W	Mag-Coupled			Samarium Cobalt			

6. Additional Options

CODE	OPTION
C1 through C7	Factory Installed Options
T1 through T13	Non-Metallic Gear • Temperature Trim
B	Bearing Flush Ports
E	BSPT Threads
XX	Specials - Consult Factory
M1 -M7	Factory Installed Close Coupled Adapter - Mag-Coupled

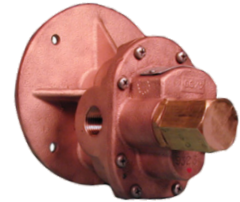


OBERDORFER

Bronze Gear Pump Modeling System

CLOSE COUPLED – Part Number Code

Example: OBN991R55Q-T97, OBN992-01, OBN999Q-F50



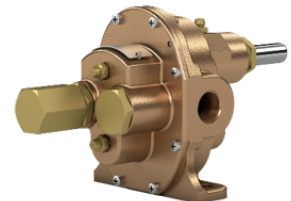
OBN991R00S5Q-T97

MANDATORY PREFIX	INDICATES BRONZE GEAR PUMP*	MODEL (FLOW)	OPTIONS**	OTHER	SEAL**	MOTOR ADAPTER CODE	MOTOR CODE
OB	N	991 (0.45 m ³ /hr) 992 (0.90 m ³ /hr) 993 (1.80 m ³ /hr) 994 (2.27 m ³ /hr) 970 (4.54 m ³ /hr) 990 (5.22 m ³ /hr) 999 (0.23 m ³ /hr)	R RELIEF VALVE E EXPORT THREAD (BSPT)	01 ONE SIZE LARGER PORTS 02 ONLY WITH "R", OPPOSITE RELIEF	— (BLANK) BUNA LIP S5 VITON LIP S8 PTFE WEDGE S15 HIGH PRESSURE VITON LIP SEAL S16 MECH. SEAL, BUNA S17 MECH. SEAL, VITON S18 MECH. SEAL, TEFLON	J, Q, N, M, K, H, C RELATES TO MOTOR FRAME SIZE <i>SEE DATA SHEET FOR PROPER ADAPTER SELECTION TO MOTOR FRAME SIZE</i>	- LETTER/NUMBER/ NUMBER

**LEAVE BLANK AND MOVE ON IF NO OPTIONS

PEDESTAL – Part Number Code

Example: OBN3000LRS15-01, OBN2000RS17-02, OBN1000RS17



OBN1000LRES3-01

MANDATORY PREFIX	INDICATES BRONZE GEAR PUMP*	MODEL (FLOW)	NOT NORMALLY USED	GEAR MATERIAL	OPTIONS	SEAL	OTHER
OB	N	1 (0.45 m ³ /hr) 2 (0.90 m ³ /hr) 3 (1.80 m ³ /hr) 4 (2.27 m ³ /hr) 7 (4.54 m ³ /hr) 9 (5.22 m ³ /hr) 11 (9.09 m ³ /hr) 13 (13.63 m ³ /hr) 26 (38.61 m ³ /hr)		00 STANDARD BOTH BRONZE 11 BOTH RYTON GEARS* 22 RYTON IDLE GEAR* *RYTON GEARS AVAILABLE ON MODELS 1,2,4 ONLY!	L LUBRICATED (BRONZE BEARINGS) R RELIEF VALVE E EXPORT THREAD (BSPT) P PEEK BEARING	— (BLANK) PTFE PACKING S3 BUNA LIP S5 VITON LIP S8 PTFE WEDGE S15 HIGH PRESSURE VITON LIP SEAL S16 MECH. SEAL, BUNA S17 MECH. SEAL, VITON S18 MECH. SEAL, TEFLON	-01 ONE SIZE LARGER PORTS -02 ONLY WITH "R", OPPOSITE RELIEF

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MP Pumps and Oberdorfer Pumps are a proud part of the Precision & Science Technologies segment of Ingersoll Rand – representing a broad portfolio of industry-leading brands that facilitate precision dosing and transfer of high-value fluids using positive displacement technology.

Precision and Science Technologies Portfolio

Industry leading brands and technologies serving mission-critical applications

Precision & Science Technologies consists of a broad range of positive displacement technologies including metering, dosing and transfer pumps for multi-industry use and specialized gas and liquid pumps for medical, lab and life-science applications. Combined, our brands and product technologies serve niche, mission critical applications.



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