

# **CECO Dean**

## **DEAN PUMP® SERIES CNV206/CNV236**

**Inline Centrifugal Process Pumps**

## **DATA PAK**

### INLINE, SINGLE STAGE, OPEN IMPELLER, CENTRIFUGAL PROCESS PUMPS TYPES CNV206, CNV236

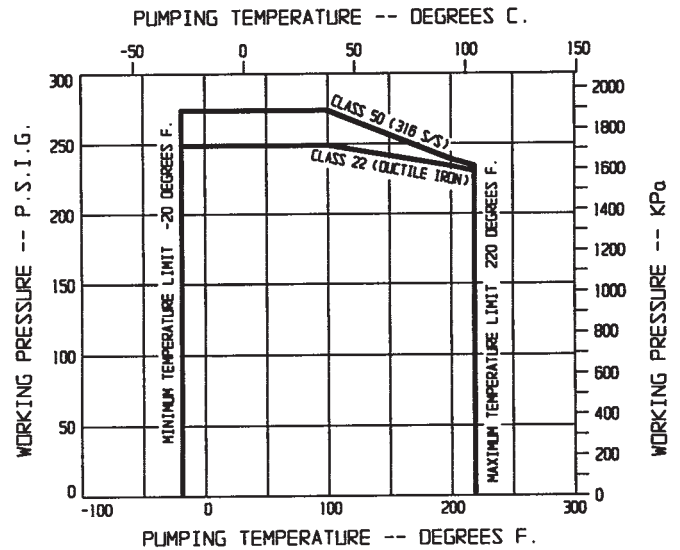
#### MECHANICAL DESIGN SPECIFICATIONS

Direction of Rotation from Motor End .....CW  
 Bearings in Motor .....Ball Type  
 Bearing Lubrication .....Grease  
 Casing Thickness, Minimum .....5/16"  
 Flanges — ANSI, Class:  
     Ductile Iron (CL 22), 316 S/S (CL 50) .....150  
 Facing .....FF  
 Finish .....125 Ra  
 Impeller Balance .....Single Plane Dynamic Balance  
 Allowable Pump Suction Pressure (2 year min. thrust bearing life) .....100 psig

	CNV206	CNV236
Horsepower Rating — max. rated		
Driver HP not to exceed @ 1750 rpm	5 HP	25 HP
@ 3500 rpm	10 HP	50 HP
Max. Hydrostatic Test Pressure		
Ductile Iron (CL 22), and 316 S/S (CL 50)	430 psig	430 psig

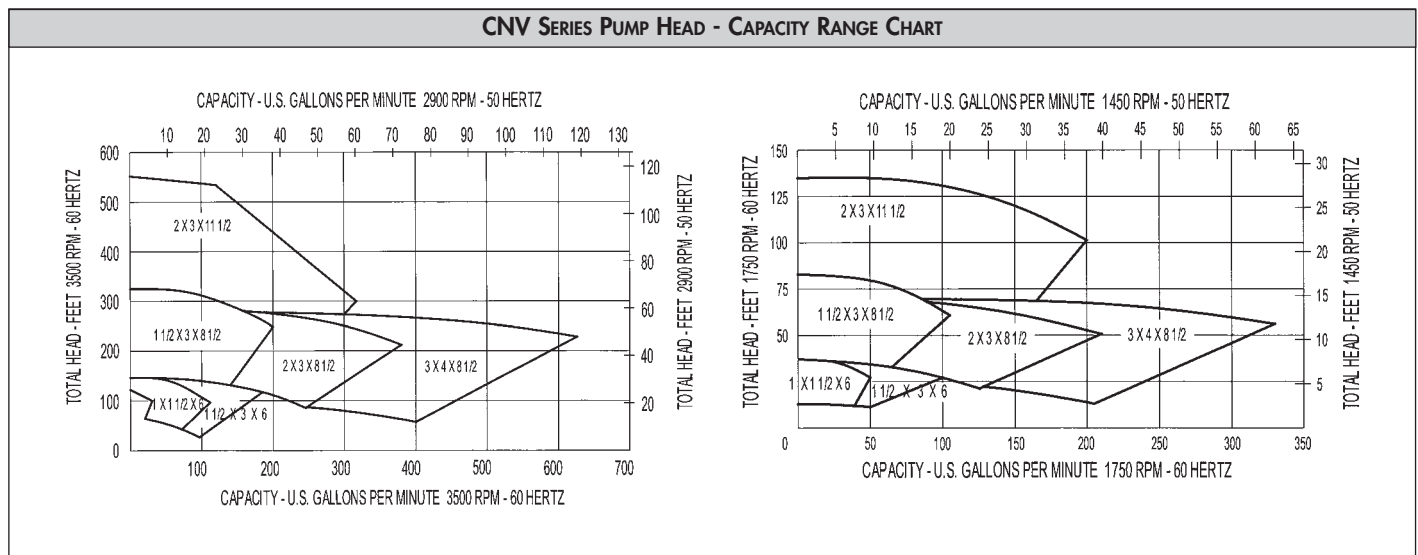
Specifications are subject to change without notice.

#### ALLOWABLE WORKING PRESSURE VS. PUMPING TEMPERATURE



All pumps contain a seal face flushing connection in the stuffing box and internal seal circulating piping as standard.

#### CNV SERIES PUMP HEAD - CAPACITY RANGE CHART



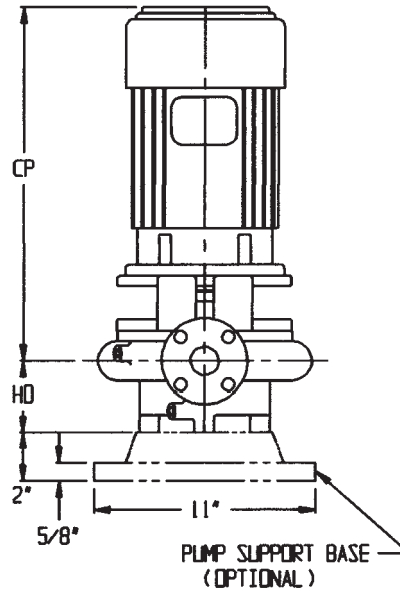
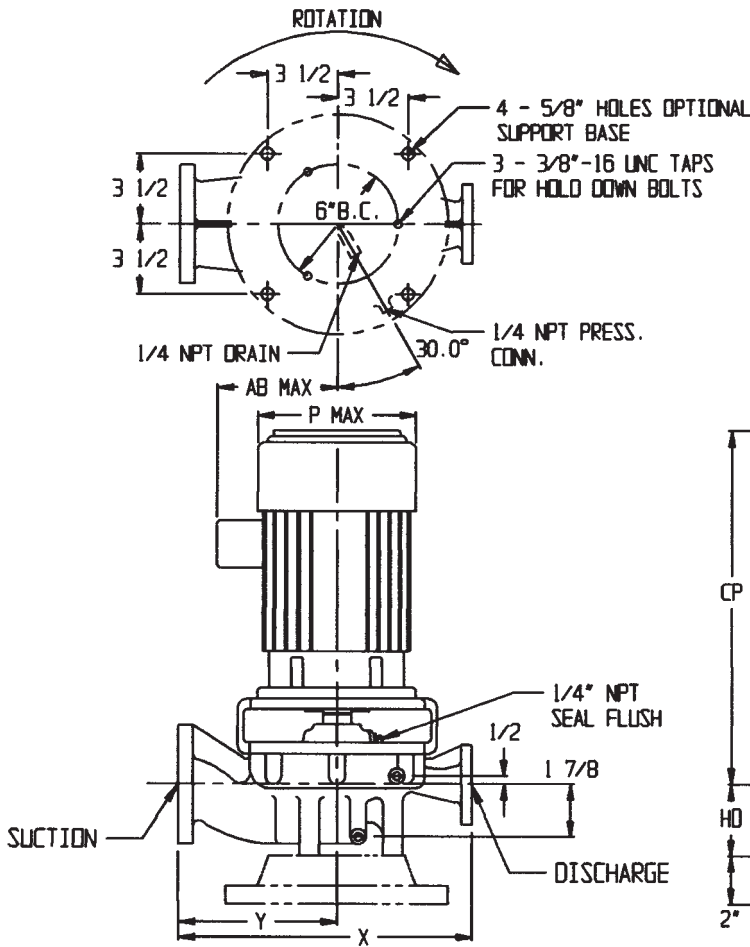
**INLINE, OPEN IMPELLER, CENTRIFUGAL PUMP WITH "JM" MOTOR**  
**CNV206 SERIES**

**FLANGES:**  
 A.N.S.I. RATING .....CLASS 150  
 FACING .....FLAT  
 FINISH .....125 Ra

PUMP SIZE	X	Y	HD	SUCTION					DISCHARGE				
				SIZE	OD	BC	BOLTS	THK	SIZE	OD	BC	BOLTS	THK
1x1 1/2x6	12 1/2	6 1/2	2 3/8	1 1/2	5	3 7/8	4-1 1/2	1 1/16	1	4 1/4	3 1/8	4-1 1/2	9/16
1 1/2x3x6	14 1/2	8	2 7/8	3	7 1/2	6	4-5/8	1 5/16	1 1/2	5	3 7/8	4-1 1/2	1 1/16

All dimensions are in inches.

FRAME	P (MAX.)	CP (MAX.)	AB (MAX.)
143JM	9	19 3/4	9 1/4
145JM	9	20 3/4	9 1/4
182JM	10 1/2	21 3/4	10 3/4
184JM	10 1/2	21 3/4	10 3/4
213JM	11 5/8	24 3/4	11 3/8
215JM	11 5/8	24 3/4	11 3/8



CERTIFICATION	IMPORTANT: Do not use for construction unless certified.
Customer _____	Item No. _____
Service _____	Pump Size. _____
Inquiry/Order No. _____	Dean Proposal/Serial No. _____
Certified By _____	Date _____

The construction shown is standard for this machine. Any change may involve additional cost, a corresponding increase in selling price and delay in shipment. If changes are necessary, mark them carefully and in detail on this print and return. You will be advised promptly as to the additional price. Meanwhile, details involved will be held up until we receive your authorization to proceed.

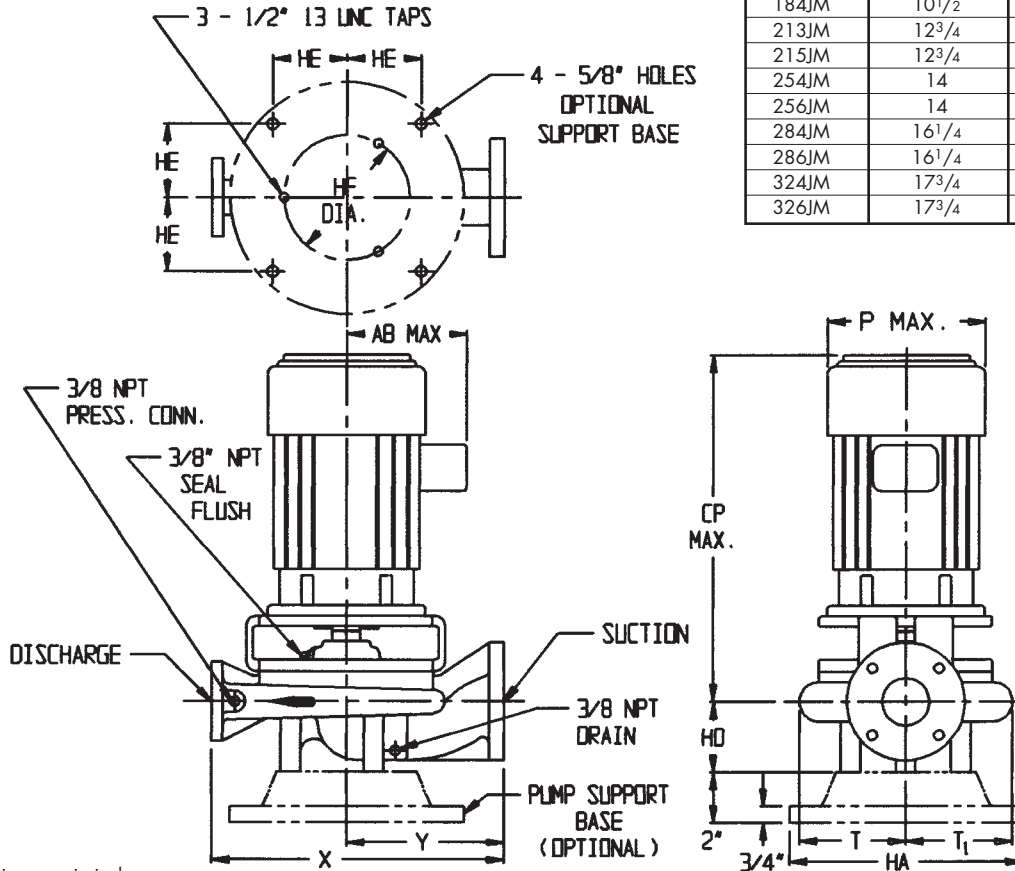
**DIMENSION DWG.**  
**NO. CNV-1501**

**INLINE, OPEN IMPELLER, CENTRIFUGAL PUMP WITH "JM" MOTOR**  
**CNV236 SERIES**

**FLANGES:**

A.N.S.I. RATING .....CLASS 150  
FACING .....FLAT  
FINISH .....125 Ra

FRAME	P (MAX.)	CP (MAX.)	AB (MAX.)
143JM	9	21 1/2	9 1/4
145JM	9	21 1/2	9 1/4
182JM	10 1/2	22 1/2	10 3/4
184JM	10 1/2	22 1/2	10 3/4
213JM	12 3/4	26 1/4	11 3/8
215JM	12 3/4	26 1/4	11 3/8
254JM	14	29 3/4	12 1/2
256JM	14	29 3/4	12 1/2
284JM	16 1/4	32	14 1/2
286JM	16 1/4	32	14 1/2
324JM	17 3/4	33 3/4	17 1/2
326JM	17 3/4	33 3/4	17 1/2



All dimensions are in inches.

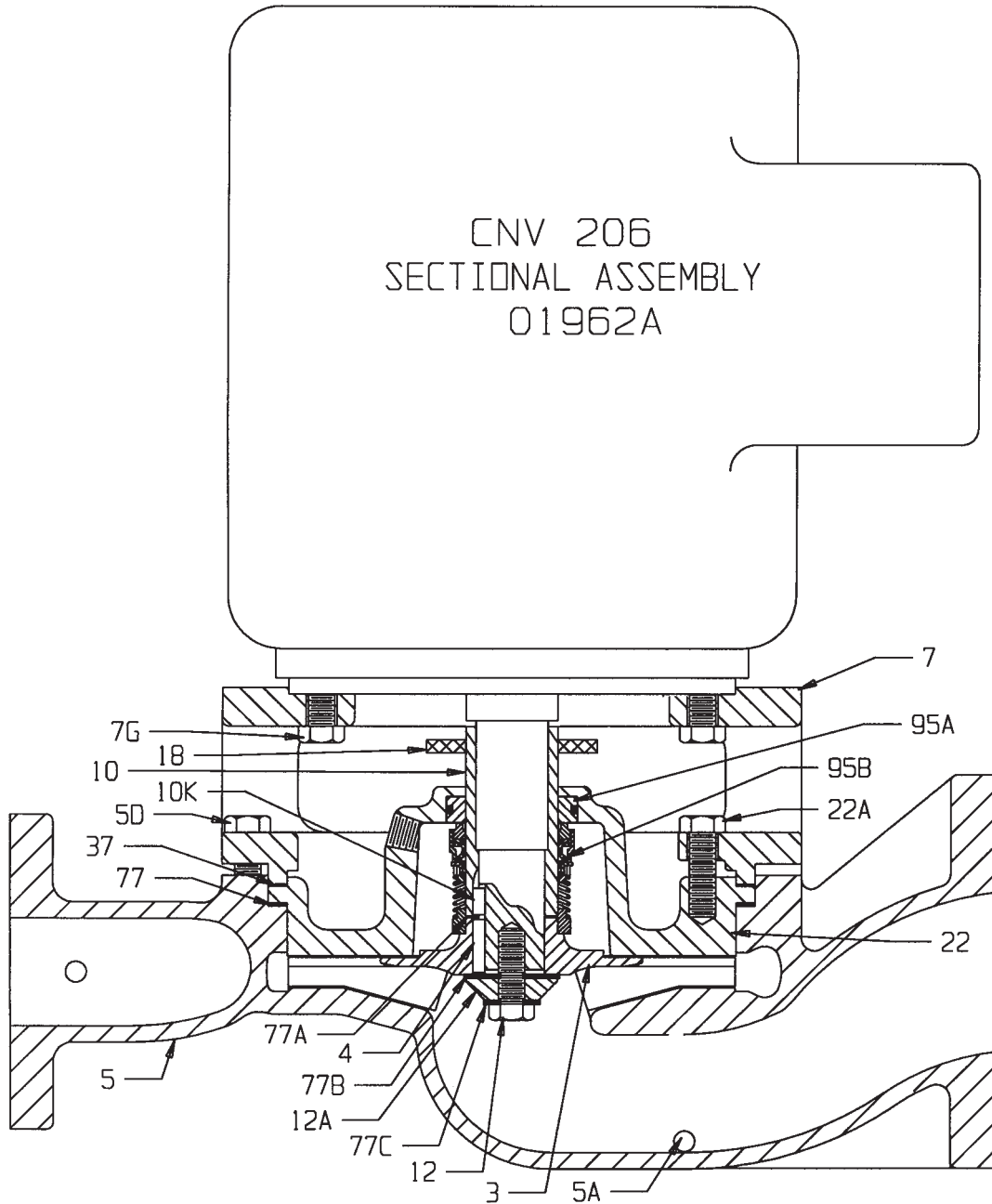
PUMP SIZE	SUCTION					DISCHARGE					HA	HD	HE	HF	T	T <sub>1</sub>	X	Y
	SIZE	OD	BC	BOLTS	THK	SIZE	OD	BC	BOLTS	THK								
1 1/2 x 3 x 8 1/2	3	7 1/2	6	4 - 5/8	15/16	1 1/2	5	3 7/8	4 - 1/2	11/16	13	4 1/2	4 1/8	7	5 3/4	5 1/2	18 1/2	10
2 x 3 x 8 1/2	3	7 1/2	6	4 - 5/8	15/16	2	6	4 3/4	4 - 5/8	3/4	13	4 1/2	4 1/8	7	6 5/8	5 3/4	20 1/2	11
3 x 4 x 8 1/2	4	9	7 1/2	8 - 5/8	1	3	7 1/2	6	4 - 5/8	15/16	13	5 1/2	4 1/8	7	7 3/4	6 1/2	24	13
2 x 3 x 11 1/2	3	7 1/2	6	4 - 5/8	15/16	2	6	4 3/4	4 - 5/8	3/4	17	4 1/2	5 1/2	10	7 5/8	7 3/8	22 1/2	12

**CERTIFICATION** **IMPORTANT: Do not use for construction unless certified.**

Customer \_\_\_\_\_ Item No. \_\_\_\_\_  
 Service \_\_\_\_\_ Pump Size. \_\_\_\_\_  
 Inquiry/Order No. \_\_\_\_\_ Dean Proposal/Serial No. \_\_\_\_\_  
 Certified By \_\_\_\_\_ Date \_\_\_\_\_

The construction shown is standard for this machine. Any change may involve additional cost, a corresponding increase in selling price and delay in shipment. If changes are necessary, mark them carefully and in detail on this print and return. You will be advised promptly as to the additional price. Meanwhile, details involved will be held up until we receive your authorization to proceed.

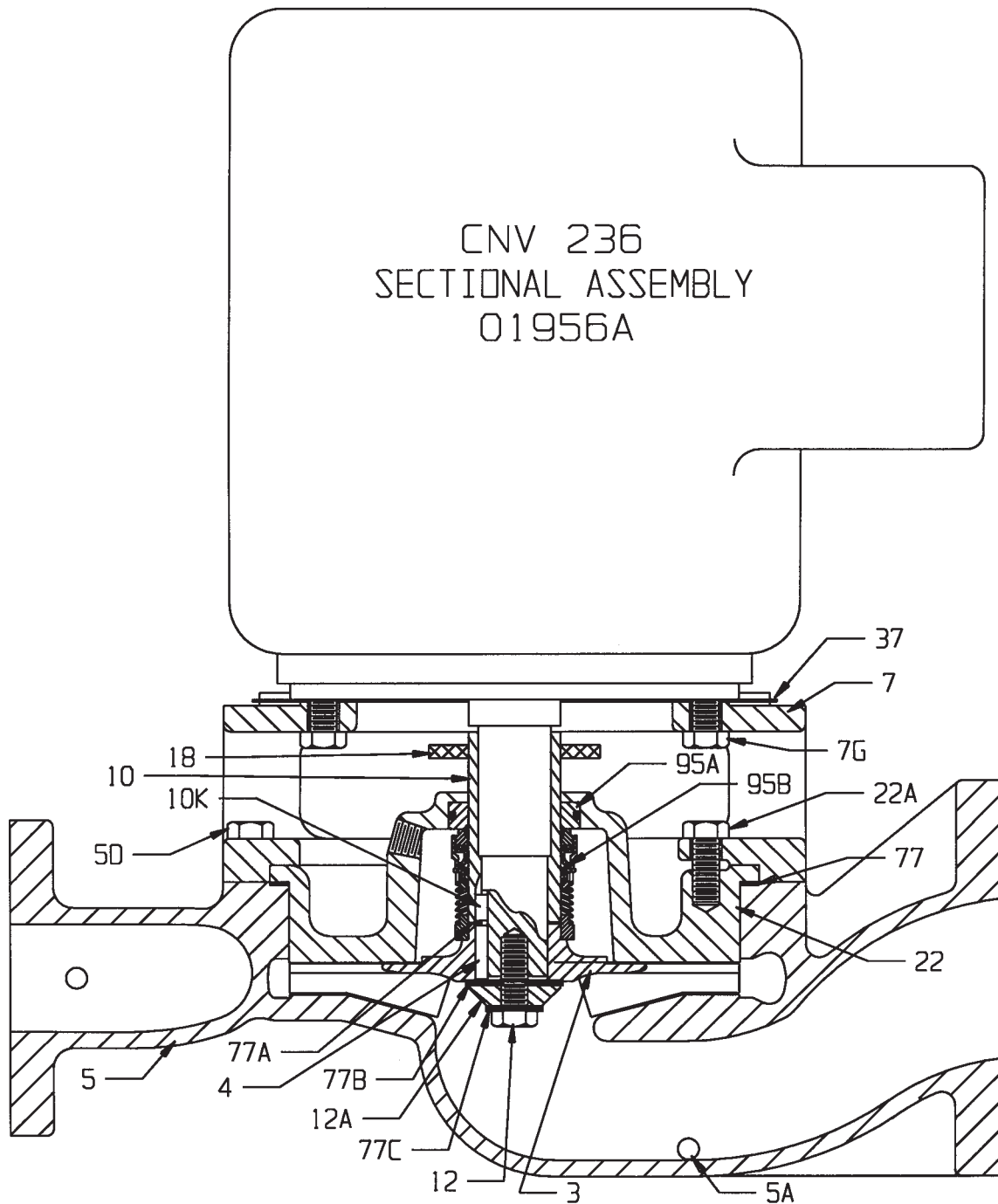
**DIMENSION DWG.**  
**NO. CNV-1510**



PART NO.	PART NAME	CLASS 22	CLASS 50
3	Impeller	Cast Iron (1)	316 S/S (11)
4	Impeller Key	Steel (4)	Steel (4)
5	Casing	Ductile Iron (5)	316 S/S (11)
5A	Casing Drain Plug	Steel (4)	316 S/S (2)
5D	Casing Capscrew	Steel (12)	Steel (12)

PART NO.	PART NAME	CLASS 22	CLASS 50
7	Adapter Cradle	Cast Iron (1)	Cast Iron (1)
10	Shaft Sleeve	316 S/S (2)	316 S/S (2)
10K	Shaft Sleeve Key	Steel (4)	Steel (4)
12	Impeller Bolt	Steel (12)	316 S/S (2)
12A	Impeller Washer	Steel (4)	316 S/S (2)

**MATERIAL SPECIFICATION:** (1) Cast Iron (2) AISI 316 S/S (4) AISI 1020 Steel (5) Ductile Iron ASTM A395 (7) Buna "N" Rubber



PART NO.	PART NAME	CLASS 22	CLASS 50
18	Splash Collar	Rubber (7)	Rubber (7)
22	Casing Back Cover	Cast Iron (1)	316 S/S (11)
22A	Casing Back Cover Screw	Steel (4)	Steel (4)
37	Clearance Shim	Steel	Steel
56	Casing Foot - Optional	Cast Iron (1)	Cast Iron (1)
77	Casing Gasket	Fiber (10)	Fiber (10)

PART NO.	PART NAME	CLASS 22	CLASS 50
77A	Gasket - Impeller/Sleeve	Fiber (10)	Fiber (10)
77B	Gasket - Impeller/Washer	Fiber (10)	Fiber (10)
77C	Gasket - Impeller/Bolt	Teflon (9)	Teflon (9)
95A	Mechanical Seal Stationary	Optional	Optional
95B	Mechanical Seal Rotary	Optional	Optional

(9) Glass Filled Teflon™ of E.I. DuPont Co.

(10) Aramid Fiber Sheet

(11) 316 S/S - ASTM A744, Grade CF-8M

(12) ASTM A449

**TYPICAL PIPE CONFIGURATIONS FOR SEAL FACE FLUSHING CONNECTIONS  
STANDARD ON ALL CNV206 AND CNV236 PUMPS**

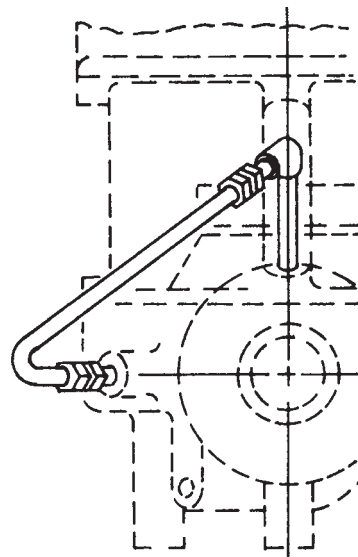
These pipe connections, required on all pumps, provide liquid to the seal faces which are positioned above the direct flow of fluid. Refer to "Starting the Pump" in the instruction manual for more details. Dean will designate which piping arrangement to be used based upon the particular liquid and service conditions.

**HIGH PRESSURE CONNECTION  
DISCHARGE TO STUFFING BOX**

**MATERIAL**

ITEM	QUANTITY	DESCRIPTION
1	1	PIPE NIPPLE
2	1	ELBOW
3	2	TUBE CONNECTION
4	1	1/4 O.D. TUBE

Ref. Head Sheet Option 48  
Sketch SK1374C for CNV206  
and SK1374A for CNV236

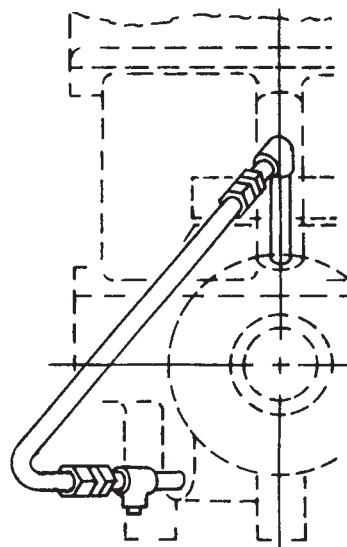


**LOW PRESSURE CONNECTION  
STUFFING BOX TO SUCTION**

**MATERIAL**

ITEM	QUANTITY	DESCRIPTION
1	1	PIPE NIPPLE
2	1	ELBOW
3	2	TUBE CONNECTION
4	1	1/4 O.D. TUBE
5	1	PIPE TEE
6	1	PIPE PLUG
7	1	PIPE NIPPLE

Ref. Head Sheet Option 49  
Sketch SK1374D for CNV206  
and SK1374B for CNV236



# CECO Dean

(317) 293-2930 • E-mail: infofhs@onececo.com

CENTRIFUGAL PUMP PERFORMANCE DATA: CURVE pHAA-1060

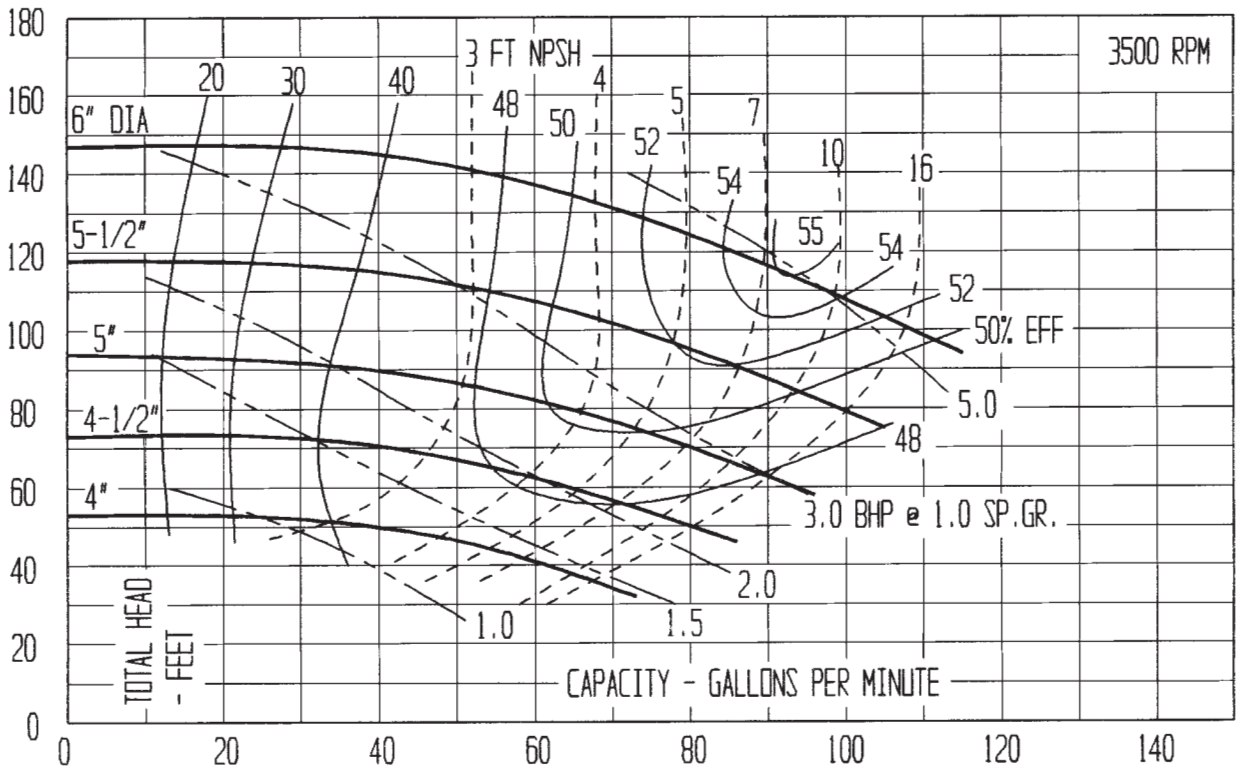
PUMP SIZE: 1" X 1-1/2" X 6"

MAX. SOLIDS: 5/16" DIAMETER

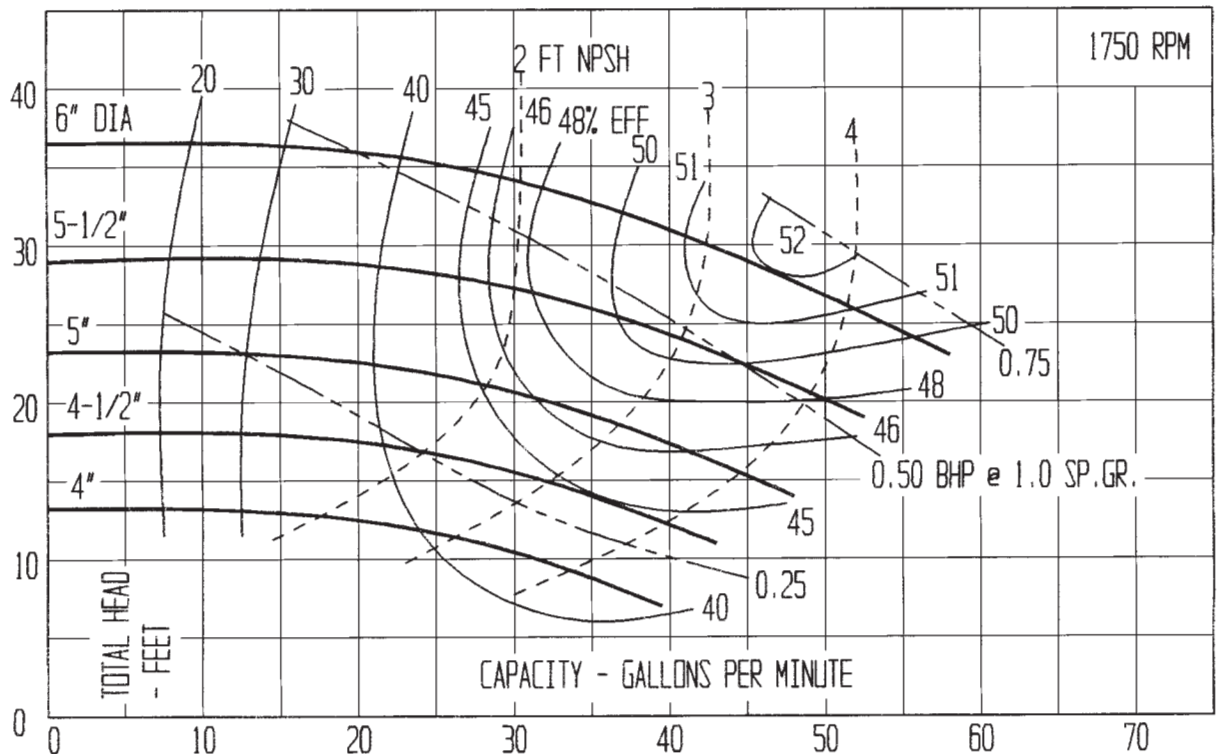
PUMP TYPE: CNV206

1" DISCHARGE X 1-1/2" SUCTION

**PUMP PERFORMANCE:** This curve, based on extensive tests, defines the average performance of this pump for liquids having a viscosity of 70 SSU or less. Actual performance of individual units may differ slightly from the performance indicated on this curve. Pump applications made from the data contained herein are subject to confirmation and acceptance by our Engineering Department at our Indianapolis Office.



Customer _____	Item No. _____
Customer's Order No. _____	Factory Order No. _____
Dean Pump Serial No. _____	







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## CENTRIFUGAL PUMP PERFORMANCE DATA: CURVE DL1585-A

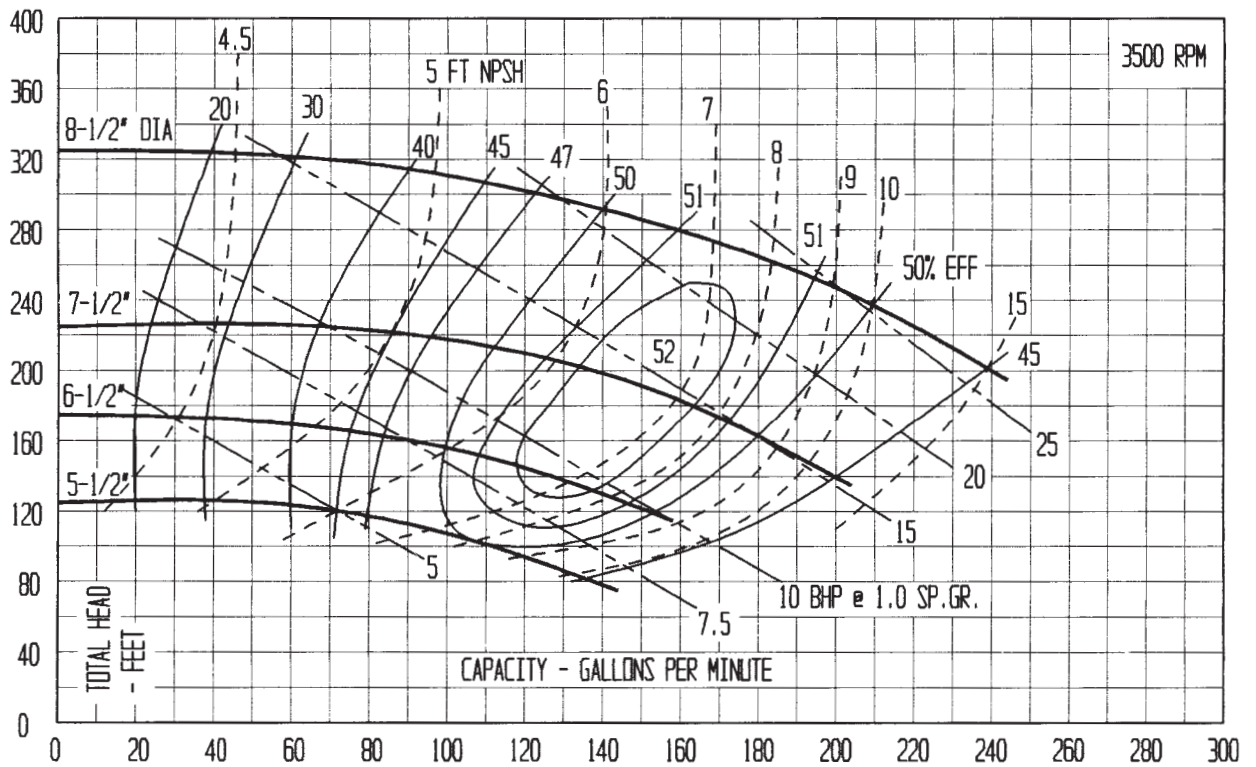
PUMP SIZE: 1-1/2" X 3" X 8-1/2"

MAX. SOLIDS: 1/2" DIAMETER

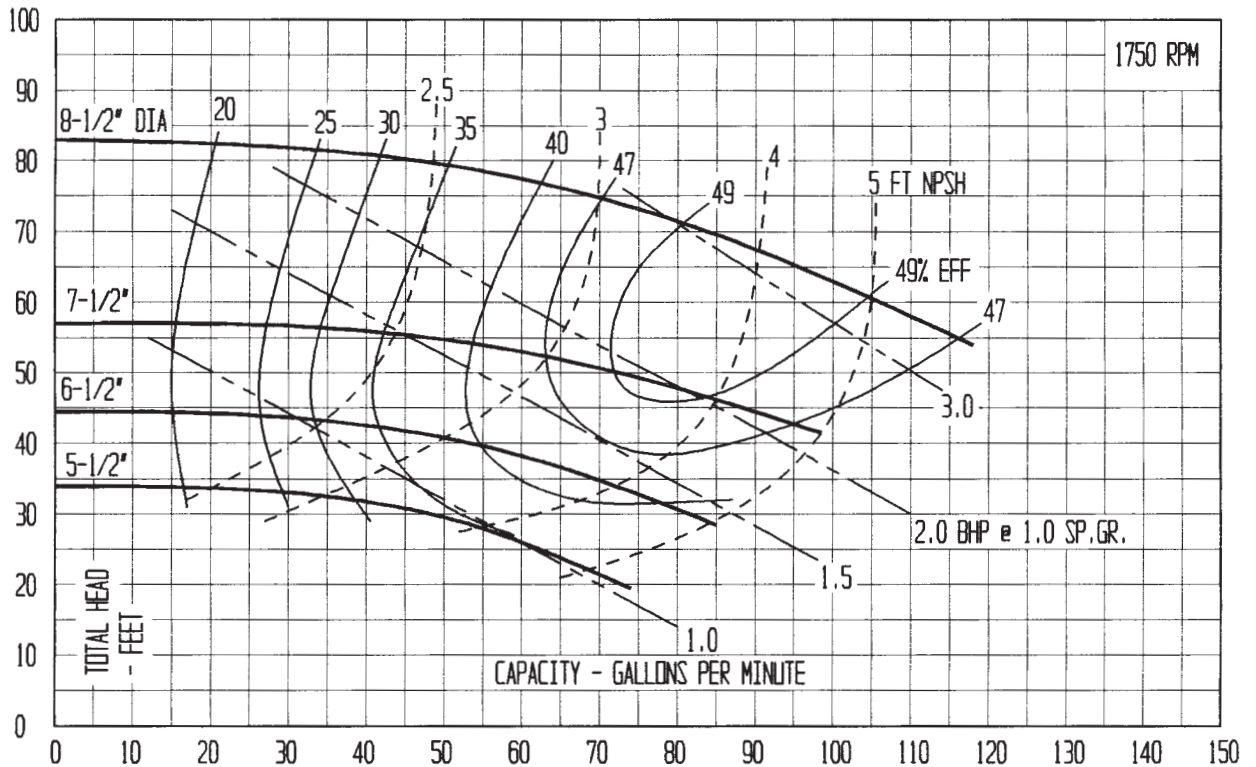
PUMP TYPE: CNV236

1-1/2" DISCHARGE X 3" SUCTION

**PUMP PERFORMANCE:** This curve, based on extensive tests, defines the average performance of this pump for liquids having a viscosity of 70 SSU or less. Actual performance of individual units may differ slightly from the performance indicated on this curve. Pump applications made from the data contained herein are subject to confirmation and acceptance by our Engineering Department at our Indianapolis Office.



Customer	_____	
Customer's Order No.	_____	Item No. _____
Dean Pump Serial No.	_____	Factory Order No. _____



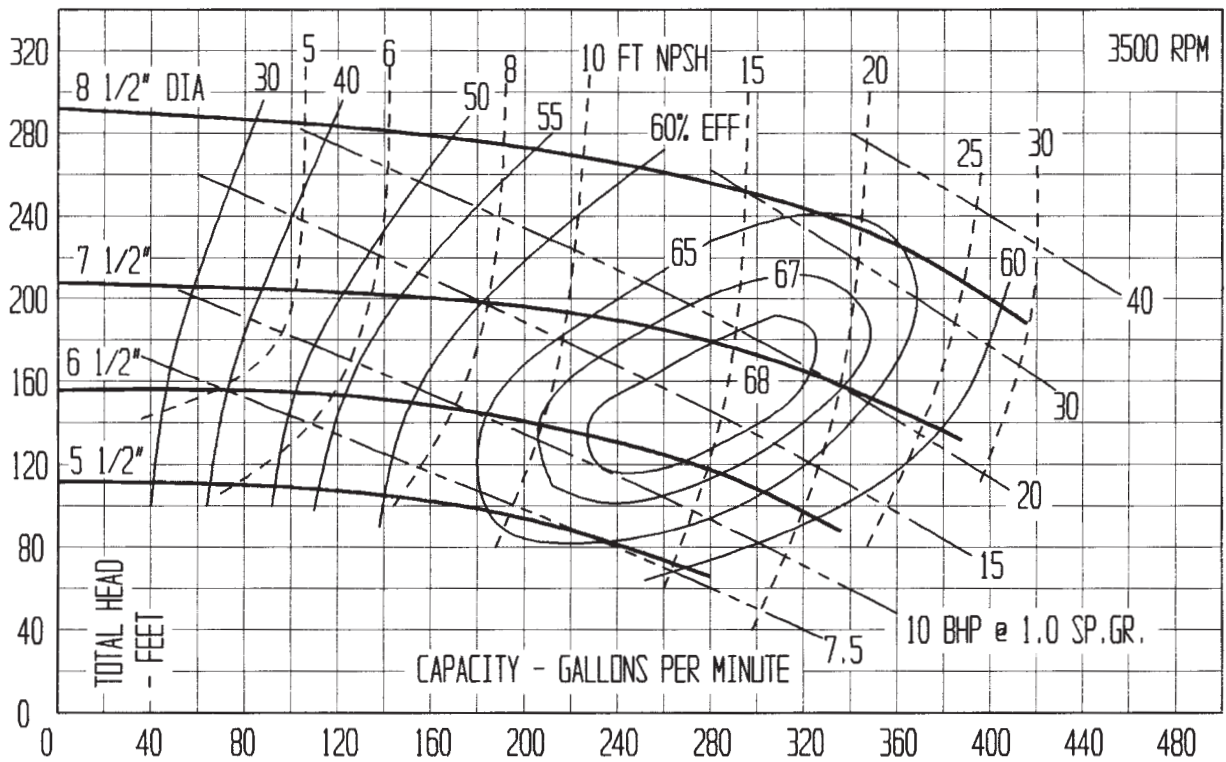
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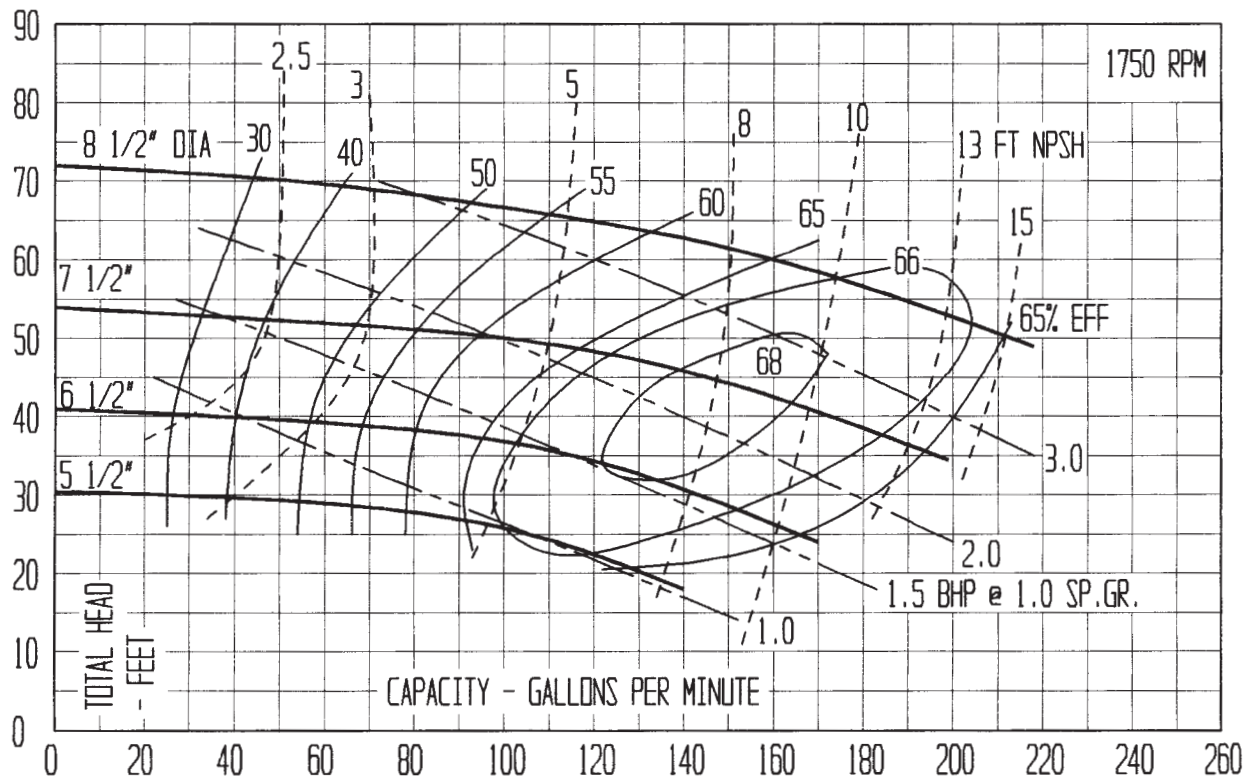
**CENTRIFUGAL PUMP PERFORMANCE DATA: CURVE DL2085-A**  
**PUMP SIZE: 2" X 3" X 8-1/2"**  
**MAX. SOLIDS: 7/16" DIAMETER**  
**PUMP TYPE: CNV236**

**2" DISCHARGE X 3" SUCTION**

**PUMP PERFORMANCE:** This curve, based on extensive tests, defines the average performance of this pump for liquids having a viscosity of 70 SSU or less. Actual performance of individual units may differ slightly from the performance indicated on this curve. Pump applications made from the data contained herein are subject to confirmation and acceptance by our Engineering Department at our Indianapolis Office.



Customer _____	_____
Customer's Order No. _____	Item No. _____
Dean Pump Serial No. _____	Factory Order No. _____



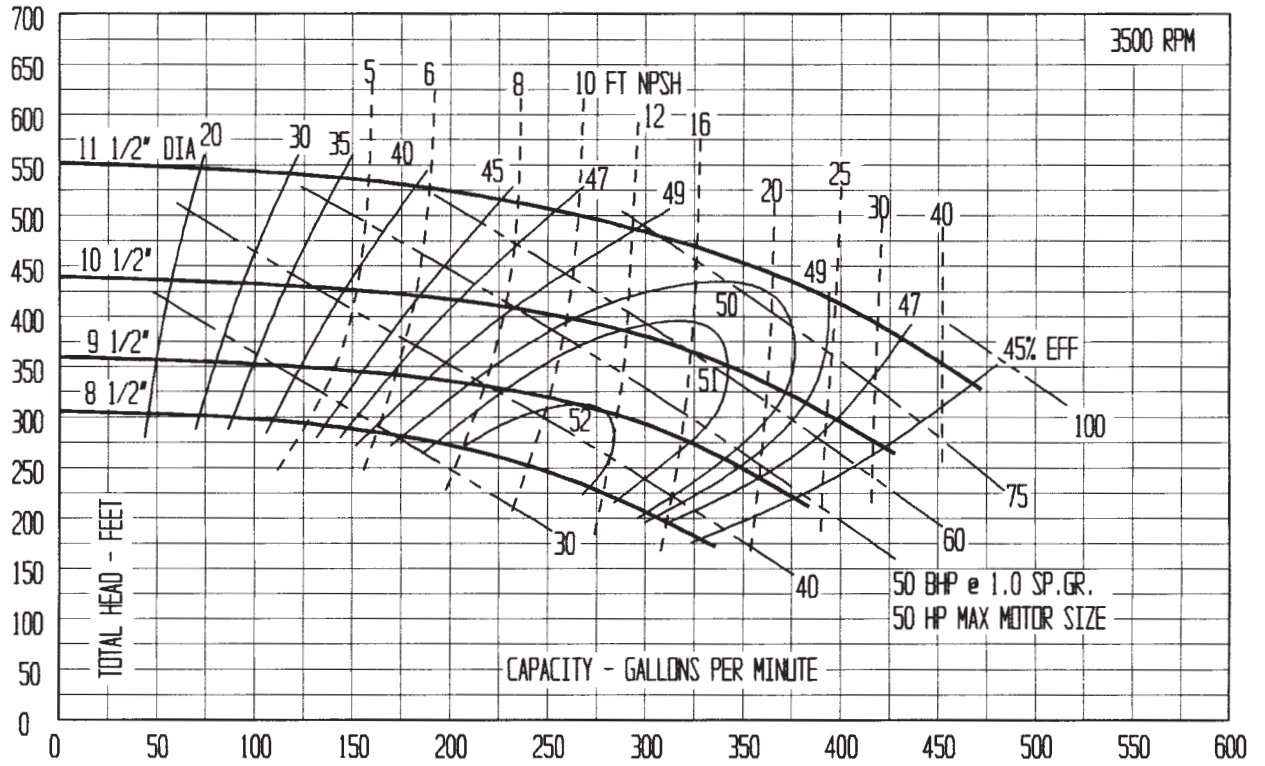
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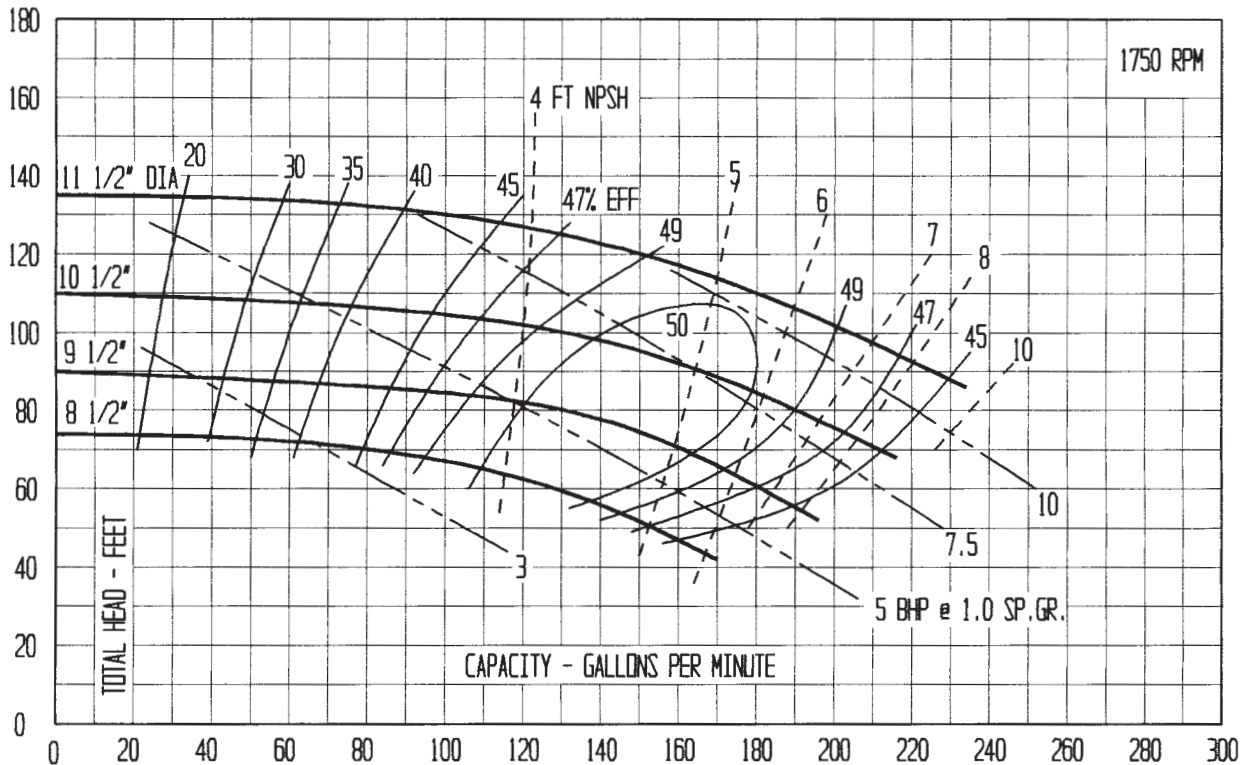
**CENTRIFUGAL PUMP PERFORMANCE DATA: CURVE DL20115-A1**  
**PUMP SIZE: 2" X 3" X 11-1/2"**  
**MAX. SOLIDS: 1/2" DIAMETER**  
**PUMP TYPE: CNV236**

**2" DISCHARGE X 3" SUCTION**

**PUMP PERFORMANCE:** This curve, based on extensive tests, defines the average performance of this pump for liquids having a viscosity of 70 SSU or less. Actual performance of individual units may differ slightly from the performance indicated on this curve. Pump applications made from the data contained herein are subject to confirmation and acceptance by our Engineering Department at our Indianapolis Office.



Customer _____	Item No. _____
Customer's Order No. _____	Factory Order No. _____
Dean Pump Serial No. _____	



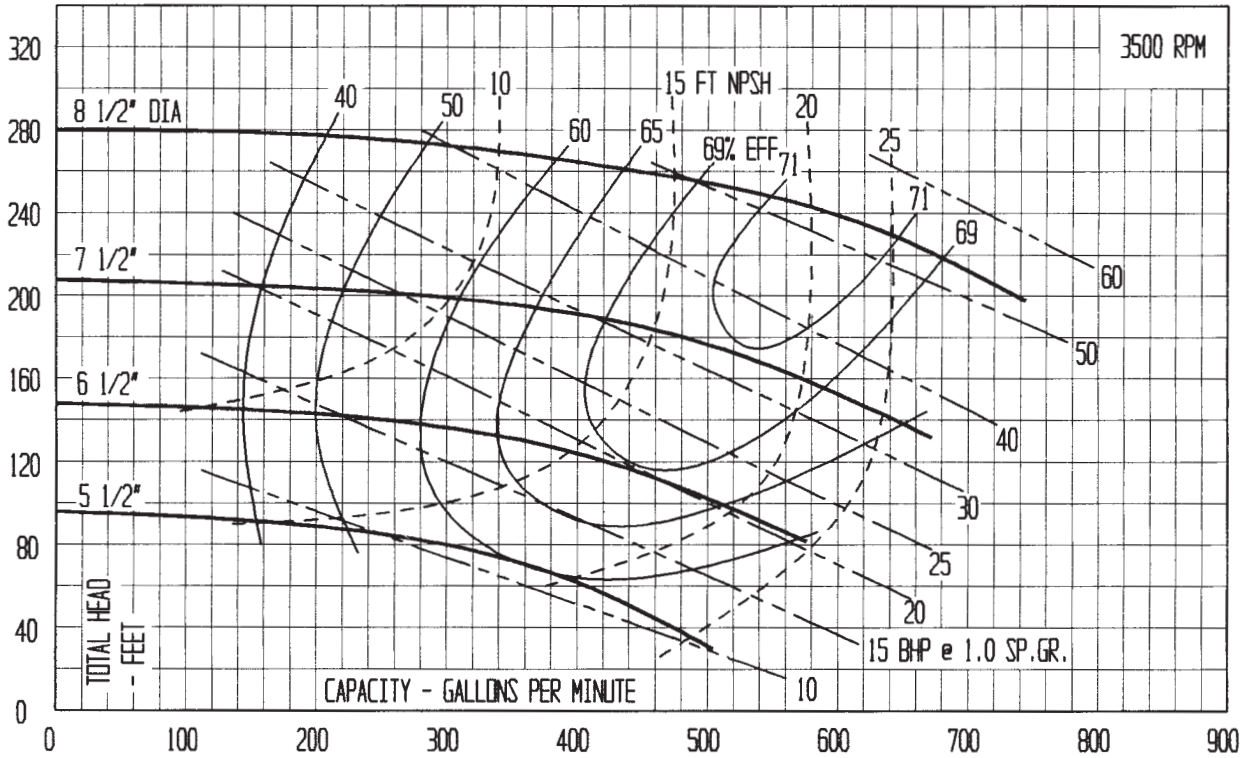
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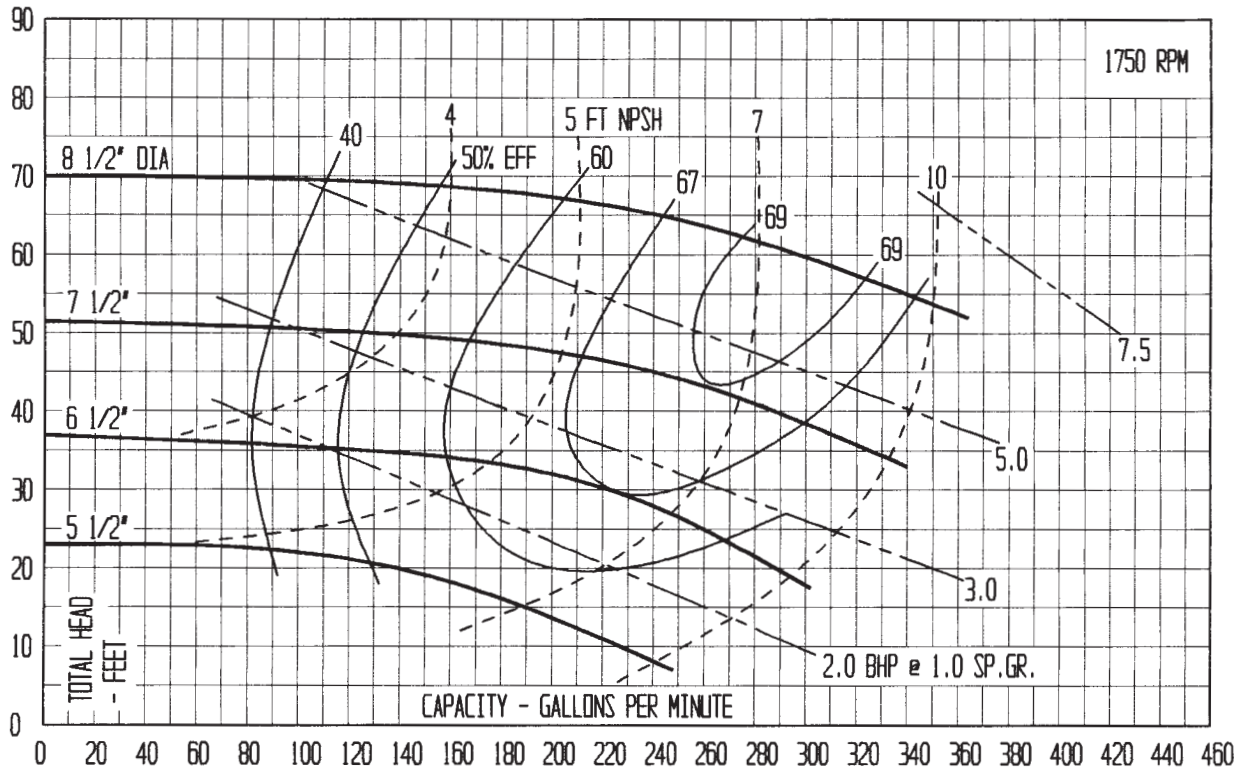
**CENTRIFUGAL PUMP PERFORMANCE DATA: CURVE DL3085-A**  
**PUMP SIZE: 3" X 4" X 8-1/2"**  
**MAX. SOLIDS: 11/16" DIAMETER**  
**PUMP TYPE: CNV236**

**3" DISCHARGE X 4" SUCTION**

**PUMP PERFORMANCE:** This curve, based on extensive tests, defines the average performance of this pump for liquids having a viscosity of 70 SSU or less. Actual performance of individual units may differ slightly from the performance indicated on this curve. Pump applications made from the data contained herein are subject to confirmation and acceptance by our Engineering Department at our Indianapolis Office.



Customer _____	_____
Customer's Order No. _____	Item No. _____
Dean Pump Serial No. _____	Factory Order No. _____



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