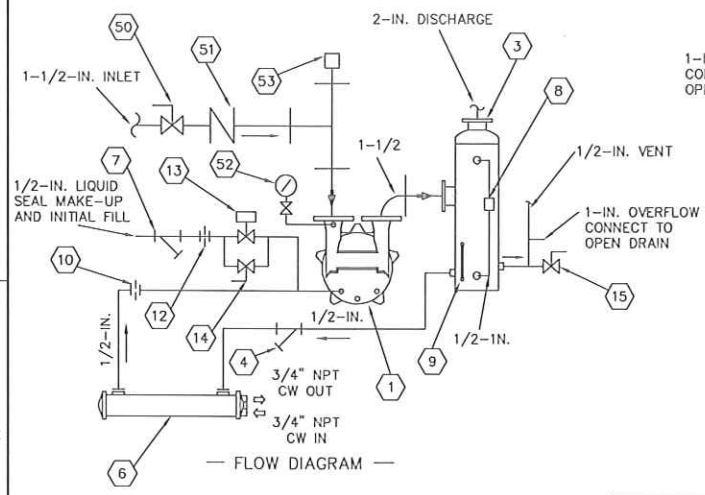
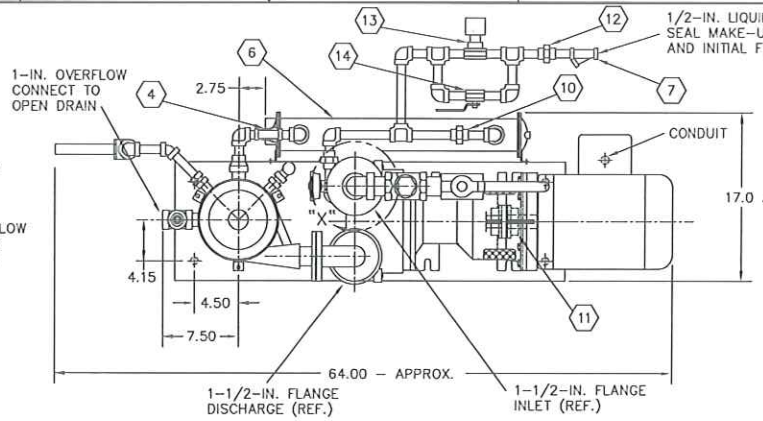
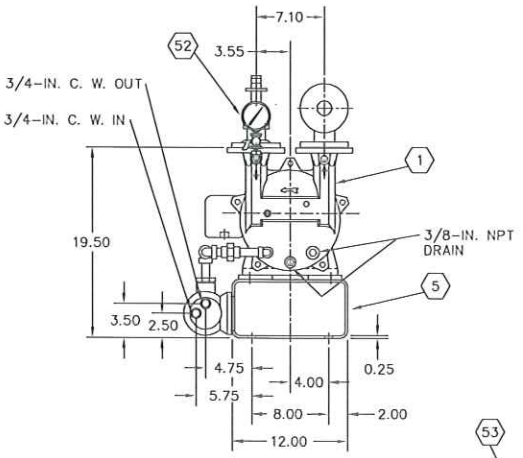
109008

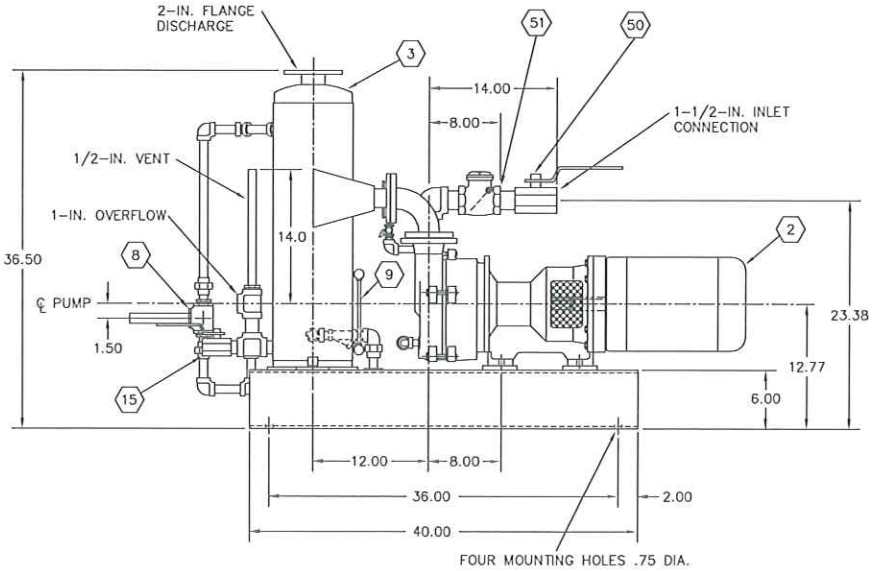




BILL OF MATERIAL:

ITEM NO.	FIND NO.	DESCRIPTION
1.	001	VACUUM PUMP EC-125L
2.	2CA	MOTOR 7.5 HP TEFC-SD
3.	2XC	SEPARATOR
4.	3FB	STRAINER RECIRC. LINE
5.	3EA	BASE
6.	2LB	HEAT EXCHANGER
7.	3FF	STRAINER – MAKE UP
8.	3AC	LEVEL SWITCH – MAKE UP
9.	2HA	GAUGE GLASS
10.	2VF	ORIFICE UNION
11.	2BA	COUPLING
12.	2BB	FLOW CONTROL VALVE – MAKE UP
13.	2BC	SOLENOID VALVE – MAKE UP
14.	2BD	BYPASS VALVE – MAKE UP
15.	2BE	DRAIN VALVE
50.	3AA	INLET ISOLATION VALVE
51.	27A	INLET CHECK VALVE
52.	2JK	VACUUM GAUGE W/COCK
53.	38A	RELIEF VALVE





NOTES:

1. REFER TO ENGINEERING DATA SHEET FOR CERTIFICATION AND ITEMS SPECIFICALLY FURNISHED FOR THIS ORDER.
2. 1/4 MESH S.STL. TEMPORARY SCREEN FOR PUMP INLET SUPPLIED BY NASH ENGRG. CO. FOR PROTECTION FROM FOREIGN MATERIAL DURING START-UP PERIOD.
3. FOUNDATION BOLTS ARE NOT FURNISHED.
4. PUMP PIPE THREAD CONNECTIONS ARE ANSI B1.20.1.
5. FOR INSTALLATION AND OPERATION SEE INSTRUCTION MANUAL.
6. SOLIDLY GROUND UNIT. DO NOT USE PIPING SYSTEM FOR GROUND.
7. BASE IS NOT DESIGNED TO BE SELF-SUPPORTING AND MUST BE GROUTED TO FORM A RIGID SUPPORT UNDER FULL AREA OF BASE.
8. INLET PIPING IS NOT FURNISHED WITH THE STANDARD PACKAGE. AN ELBOW IS FURNISHED WHEN ITEMS 50 AND/OR 51 ARE ORDERED. A TEE REPLACES THE ELBOW WHEN ITEM 53 IS ORDERED.

DUPONT-DANISCO PO# DDCE-0122
EQUIP. NO. P9000-3 STILLAGE VACUUM PUMP

DWG. NO.	SH	REV.
24-2189		A

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL	10/5/99	ETM

– UNLESS OTHERWISE NOTED –
DIMENSIONAL UNITS ARE: INCHES
– TOLERANCES –

GENERAL	MOUNTING HOLE LOCATIONS	PIPE CONNECTION LOCATIONS ≤ 2" NPS	PIPE CONNECTION LOCATIONS > 2" NPS
± .13	± .06	± .50	± .25

DWN	R. M.	10/5/99
CHK	ETM	10/13/99
APVD DSGN	CHB	10/13/99
APVD ENGR	EHN	10/13/99
APVD QA		
PROJECTION		

NASH® ENGINEERING COMPANY
TRUMBULL, CONN. 06611-1330

INSTALLATION
EC-125L
DELTA PAK RECIRCULATED SEAL
DIRECT DRIVE

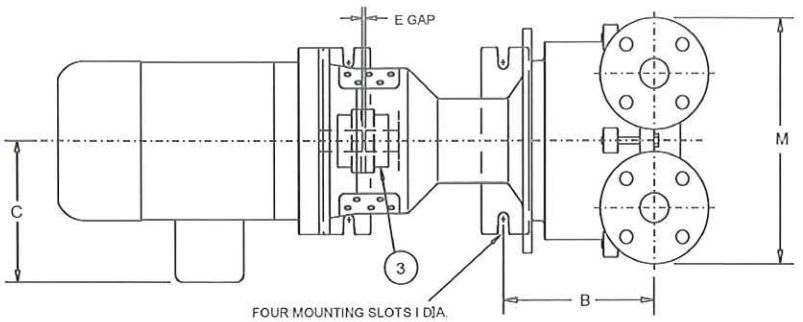
SIZE	FSCM NO.	DWG NO.	REV
D	42280	24-2189	1

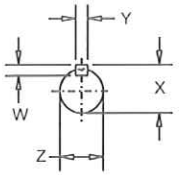
SCALE NONE SHEET

DWG NO	SH	REV
24-1938		D

REVISIONS

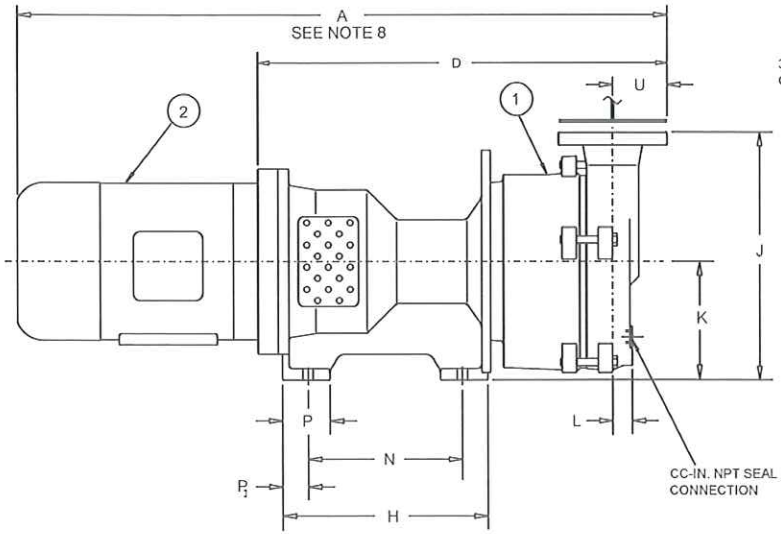
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL	3/27/98	RAL
	B	REVISED DIMENSIONS (ECN 1133U98)	5/19/98	RAL
	C	REVISED DIMENSIONS (ECN 1145U98)	6/26/98	RAL
	D	EC-125L WAS 184TC (ECN 1104U99)	4/13/99	FSM

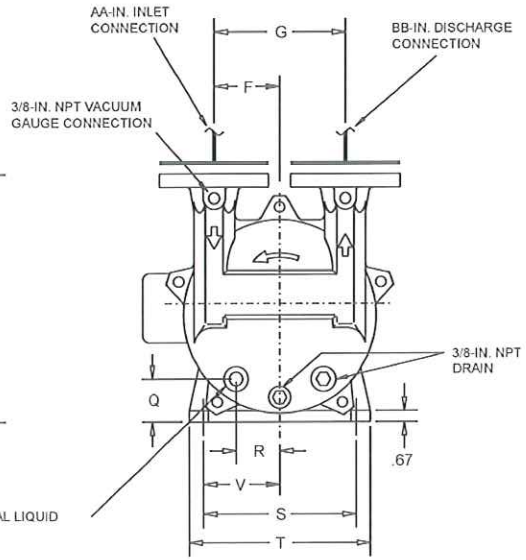




SHAFT DETAIL

ITEM NO.	DESCRIPTION
1	VACUUM PUMP
2	MOTOR (IF SUPPLIED)
3	COUPLING (IF SUPPLIED)





NOTES:

1. REFER TO ENGINEERING DATA SHEET FOR CERTIFICATION AND ITEMS SPECIFICALLY FURNISHED FOR THIS ORDER.
2. STAINLESS STEEL TEMPORARY SCREEN FOR PUMP INLET WILL BE SUPPLIED BY NASH ENGINEERING CO. FOR PROTECTION FROM FOREIGN MATERIAL DURING START-UP PERIOD. TWO SCREENS (1/4 & NO. 30 MESH) WILL BE SUPPLIED WITH STAINLESS STEEL PUMPS. THE NO. 30 MESH SCREEN SHOULD BE INSTALLED ON THE UPSTREAM SIDE OF THE 1/4 MESH SCREEN.
3. FOUNDATION BOLTS ARE NOT FURNISHED.
4A. ALL IRON PUMP FLANGES ARE FLAT FACE AND CONFORM TO ANSI CLASS 125 BOLT PATTERNS. BOLT HOLES STRADDLE CENTERLINES.
4B. ALL ST. STL. PUMP FLANGES ARE RAISED FACE AND CONFORM TO ANSI CLASS 150 BOLT PATTERNS. BOLT HOLES STRADDLE CENTERLINES.
5. PUMP PIPE THREAD CONNECTIONS ARE ANSI B1.20.1.
6. FOR INSTALLATION AND OPERATION SEE INSTRUCTION BULLETINS.
7. SOLIDLY GROUND UNIT. DO NOT USE PIPING SYSTEM FOR GROUND.
8. DIMENSION "A" IS FOR REFERENCE ONLY BASED ON STANDARD TEFC MOTORS.
9. DRAWING NOT CERTIFIED UNLESS STAMPED.

PUMP SIZE	NEMA MTR FRAME	A	B	C	D	E	F	G	H	I	J (C.I.)	J (S.S.)	K	L	M	N	P	P1	Q	R	S	T	U	V	W-MM	X-MM	Y-MM	Z-MM	AA	BB	CC
EC-90L	184TC	34.63	7.25	7.00	21.32	1.00	3.55	7.10	11.02	.55	12.90	13.31	6.30	1.06	13.00	8.27	2.56	1.38	2.30	2.36	8.27	9.92	2.95	4.13	7,0	31,0	8,0	28,0 (K6)	1-1/2	1-1/2	3/8
EC-125L	213TC	35.37	8.00	7.00	22.06	1.00	3.55	7.10	11.02	.55	12.90	13.31	6.30	1.06	13.00	8.27	2.56	1.38	2.30	2.36	8.27	9.92	2.95	4.13	7,0	31,0	8,0	28,0 (K6)	1-1/2	1-1/2	3/8
EC-150L	213TC	36.62	8.23	8.80	22.07	0.25	3.55	7.10	11.02	.55	12.90	13.31	6.30	1.06	13.00	8.27	2.56	1.38	2.30	2.36	8.27	9.92	2.95	4.13	7,0	31,0	8,0	28,0 (K6)	1-1/2	1-1/2	3/8
EC-250L	215TC	42.18	8.90	8.80	27.80	1.00	3.94	7.88	15.60	.71	16.14	16.14	7.68	1.30	15.37	12.40	2.76	1.60	2.50	3.00	9.84	11.80	3.75	4.92	8,0	41,0	10,0	38,0 (J6)	3	3	1/2
EC-320L	254TC	48.44	10.15	10.10	28.94	0.25	3.94	7.88	15.60	.71	16.14	16.14	7.68	1.30	15.37	12.40	2.76	1.60	2.50	3.00	9.84	11.80	3.75	4.92	8,0	41,0	10,0	38,0 (J6)	3	3	1/2
EC-450L	256TC	50.25	11.92	10.10	30.70	0.25	3.94	7.88	15.60	.71	16.14	16.14	7.68	1.30	15.37	12.40	2.76	1.60	2.50	3.00	9.84	11.80	3.75	4.92	8,0	41,0	10,0	38,0 (J6)	3	3	1/2

- UNLESS OTHERWISE NOTED -

DIMENSIONAL UNITS ARE: INCHES UNLESS OTHERWISE NOTED

- TOLERANCES -

GENERAL	MOUNTING HOLE LOCATIONS	PIPE CONNECTION LOCATIONS ≤ 2" NPS	PIPE CONNECTION LOCATIONS > 2" NPS
± .13	± .06	± .13	± .06

		DATE
DWN	R.M.	3/27/98
CHKR	RAL	3/31/98
APVD DSGN	LJL	3/31/98
APVD ENGR	RAL	3/31/98
APVD QA		

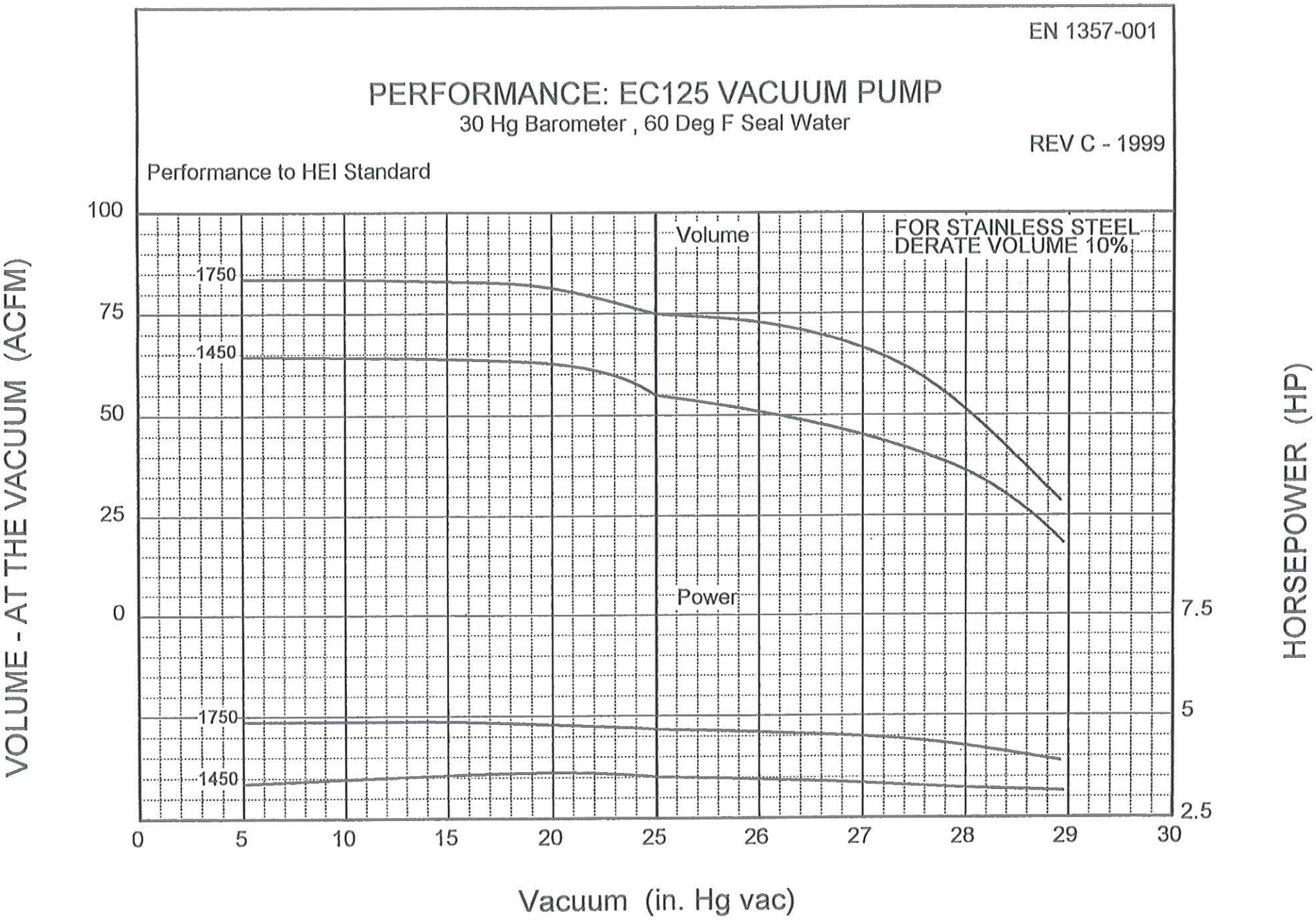
PROJECTION

NASH® ENGINEERING COMPANY TRUMBULL, CONN. 06611-1330

INSTL. DWG. VACUUM PUMP MODELS EC-90L, 125L, 150L, 250L, 32OL, 450L

SIZE	FSCM NO	DWG NO	REV
D	42260	24-1938	D

SCALE | SHEET 1 OF 1


EN 1357-001
PERFORMANCE: EC125 VACUUM PUMP
30 Hg Barometer , 60 Deg F Seal Water
REV C - 1999
Performance to HEI Standard
Volume
FOR STAINLESS STEEL
DERATE VOLUME 10%
1750
1450
Power
1750
1450
100
75
50
25
0
7.5
5
2.5
0
5
10
15
20
25
26
27
28
29
30
VOLUME - AT THE VACUUM (ACFM)
HORSEPOWER (HP)
Vacuum (in. Hg vac)

FindeR POMPE
Finder Pompe SpA
Via Bergamo, 65 23807Merate (Lc) Italy
tel (+39)(39)9982.1 fax(+39)(39)599267

CERTIFICATO FUNZIONALE
PERFORMANCE CERTIFICATE

EN 10204 2.2

CFC 0702304-1

Cliente Customer	Gardner Denver Nash	**Descrizione** Description	EC 125L	**Procedura** Procedure	PCQ PF10
N. dell'ordine Order no.	443477	**Posizione No.** Item		**Piano Controllo** Control Plan	
Commessa N. JoB no.	0702304	**N. di Serie / Codice** Serial no.	070911/S/57	**Pagina / fase** Sheet / step	

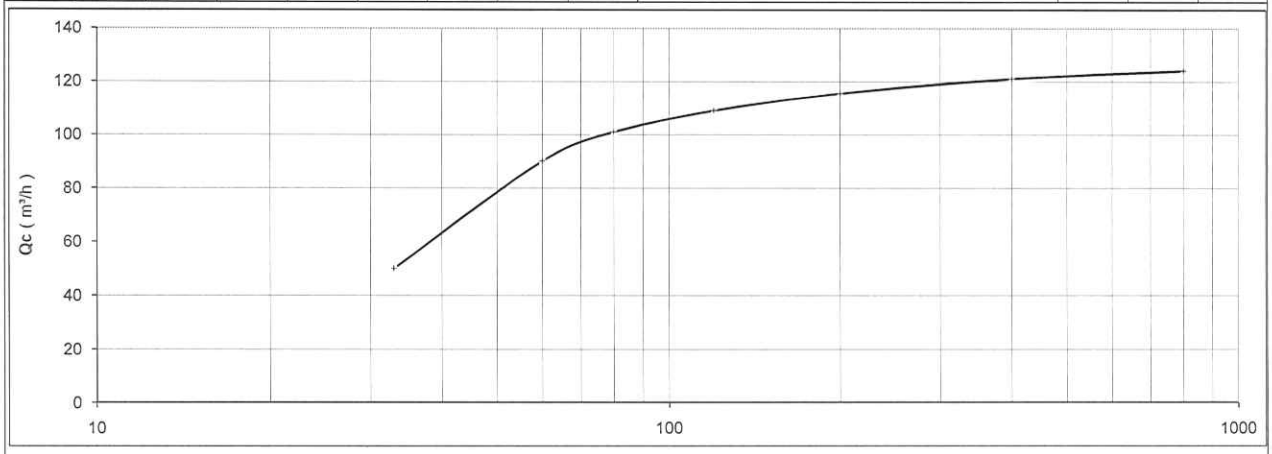
Collaudo Funzionale Performance Test - PNEUROP 6612

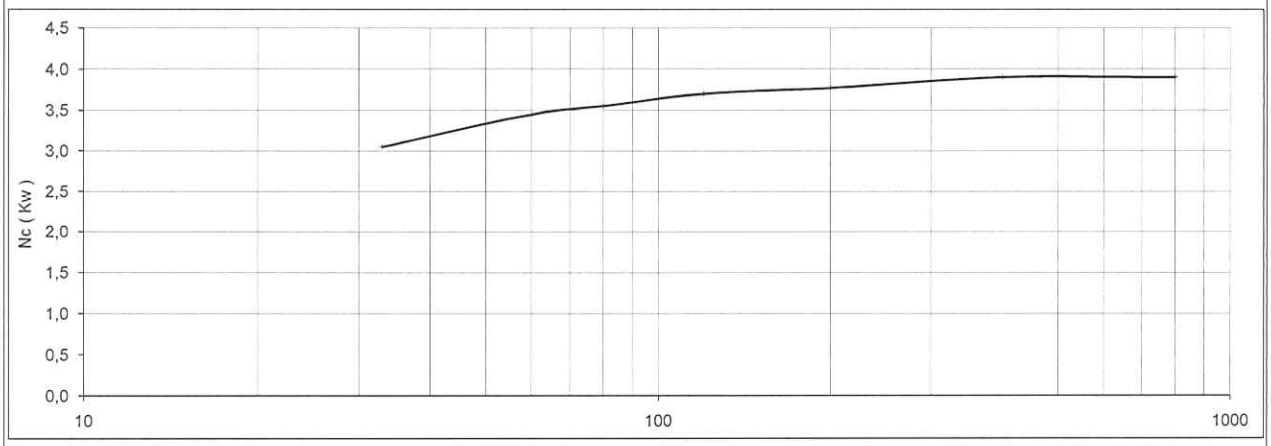
Dati Pompa Pump Data

				N	1	2	3	4	5
		Volt	V	400	400	400	400	400	400
Dati Riportati Data with		ng	n.	1750	1750	1750	1750	1750	1750
		P1	m bar	33	60	200	400	800	
			mm Hg	25	45	150	300	600	
ng	1750	Qc	m³/h	50,0	90,0	115,5	121,0	124,0	
TLg	15	Nc	Kw	3,05	3,45	3,77	3,90	3,90	
T1g	20								

Dati Contrattuali della pompa Pump performance required

Portata	Capacity	Qc	m³/h	
Pressione di Aspirazione	Suction Pressure	P1	mbar	
			torr	
T. Liquido Servizio	Service Liquid temp.	TLg	°C	15
T. Liquido aspirazione	Suction Liquid temp.	T1g	°C	20
Giri	RPM	ng	n.	1750
Pot. Assorbita	Absorbed power	Nc	Kw	
Pot. Motore	Motor Power	Nm	Kw	





P1 (m bar)

Visivo/Dimensionale Visual/Dimensional	Hydrotest ANSI/HI		Materiali Materials (ASTM)
	PCQ HT 02		Corpo Casing: A 278 C 250 — Girante Impeller: A 351CF8M — Albero Shaft: A 276 T.420
Conforme al disegno Conform to drawing	Minuti Minutes	Bar	
CATALOGUE	5	5	

	C (%)	Mn (%)	Cr (%)	Ni (%)	Mo (%)	Si (%)	Rm (Mpa)	Rp (Mpa)
A 278 C 250							≥ 250	
A 351CF8M	≤ 0,06	≤ 1,5	≤ 0,04	≤ 0,04	18÷21	9÷12	≥ 485	≥ 205
A 276 T.420	≤ 0,5	≤ 1	12÷14					

Si certifica che la totalità dei materiali e servizi , richiesti a fronte dell'ordine in oggetto, sono conformi in ogni parte alle specifiche, disegni e prescrizioni contrattuali.
Si certifica inoltre che sono stati verificati e sottoposti alle prove di conformità, alle condizioni ed esigenze dell'ordine con esito positivo.
We hereby certify that all materials and services required against the above mentioned order fully comply with specifications, drawings and contract recommendations.
We also certify that all materials have been checked and submitted to internal test with positive results.

Data Date	Eseguito Da Performed by	Approvato Da Approved by			Risultati Results
18,09,2009		I.riva			Soddisfacente, Conforme alla procedura Satisfactory, Conform to procedure