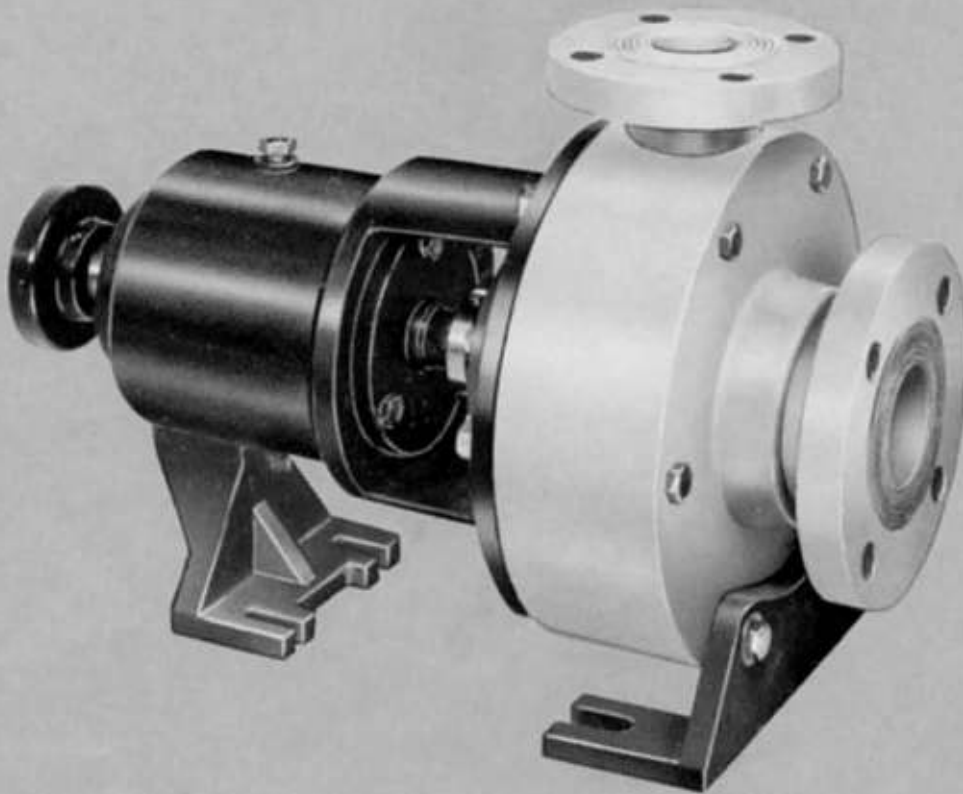


CPVC
CENTRIFUGAL
PUMPS
FOR TRANSFERRING
CORROSIVE
LIQUIDS



Sethco Division



forged' CPVC

for corrosive acids and alkalis

FLOW CAPACITIES TO 240 GPM
MAX. HEAD TO 140 FT.
TEMP. TO 180° F.

- APPLICATIONS: • chemical processing • metal finishing
• chemical transfer • waste treatment • desalination
• printed circuits • metal etching • fume scrubbers
• anodizing • pickling • electroplating



with CLOSED IMPELLER

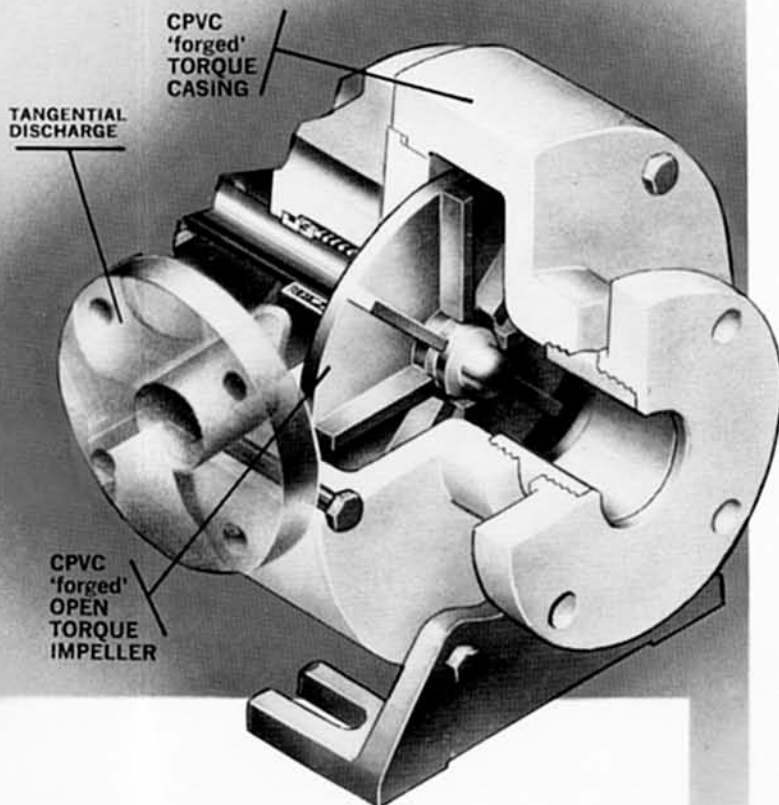


with OPEN TORQUE IMPELLER

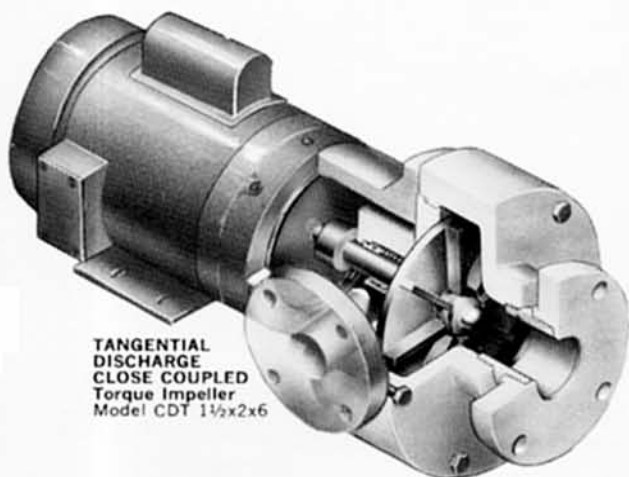
Sethco *'forged'* CPVC CHEMICAL PUMP

with OPEN TORQUE IMPELLER
for solids and slurry handling

Sethco's 'in-stream' open torque impeller design permits higher efficiency at less HP than usually required to move moderate amounts of solids, slurries and abrasives.



FRAME MOUNTED / Open Torque Impeller
Model BDT 1½x2x6



TANGENTIAL DISCHARGE
CLOSE COUPLED
Torque Impeller
Model CDT 1½x2x6

HOW TO CHOOSE THE SETHCO PUMP FOR YOUR NEEDS

For Clean Liquids — Models BDC or CDC
For Slurries or Solids — Models BDT or CDT

The most efficient and economical choice of your Sethco pump is based on your present and future needs. This check list of operating conditions will determine the specifications of your pump and will assist Sethco in selecting the best pump.

PUMP SELECTION

Necessary data to determine material of construction, pump size, shaft material, motor HP, and pump seal:

GPM / LPM _____ Head Ft./Meters _____
Liquid _____ Concentration _____ Sp. Gr. _____ pH _____
Temperature _____ Viscosity _____ % Solids _____ Abrasive _____
Nature of Solids _____ NPSH available _____

HEAD

When the HEAD is expressed in psi, convert to feet by multiplying the psi figure by 2.31 and then divide by the specific gravity of the liquid.

CAPACITY-HEAD CURVE

Locate the flow-head requirements on the curve. First try using the 1750 RPM curve. Slower running pumps give longer life to seals, shaft and bearings. For values above the 1750 RPM curve, select the pump on the 3500 RPM curve.

To determine optimum impeller diameter locate the point on the curve where the flow in GPM and the HEAD in feet meet. This operating point will give the impeller diameter. If the point is in between two curves, the impeller diameter can be estimated.

The HP required is determined from the H.P. curve of appropriate impeller diameter, directly below the operating point. The BHP is read to the right. An intermediate HP figure can also be estimated between curves as done above. This BHP figure is now multiplied by the specific gravity to determine the required HP to operate the Sethco pump efficiently.

FOR 50 Hz OPERATION:

To convert pump requirements from 50 Hz to 60 Hz for use with the adjacent Flow Curves:

Divide GPM required @ 50 Hz by 0.835 to get GPM @ 60 Hz

Divide Ft. required @ 50 Hz by 0.695 to get Ft. @ 60 Hz

English	Metric
10 psi	= 0.7 kg/cm ²
1 gal.	= 3.785 liters
1 ft.	= 0.3048 meter

PUMPING VISCOUS LIQUIDS

All pump characteristics will alter radically when handling viscous liquids. Do not use a centrifugal pump for liquids over 100 ssu (21 centistokes).

Using these converted figures, now find the correct Impeller Diameter, Motor Horsepower and required NPSH from the Flow Curves.

PEAK OPERATING EFFICIENCY. The Sethco BD/CD Series centerline or tangential discharge and rear pullout is designed to operate continuously with a minimum of servicing. The forged casing with smooth inner surfaces plus a choice of enclosed or open 'torque' impeller combine to give peak operating efficiency.

For all types of corrosive solution pumping Sethco offers a range of four 'forged' pump variations to suit specific applications. The power end at 1750 RPM or 3500 RPM is available either frame mounted or close coupled. For connections to specific or existing installations optional flanges can be ordered to fit threaded ports.

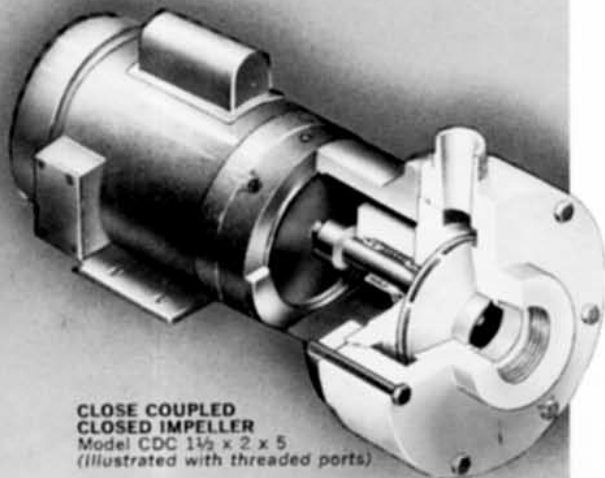
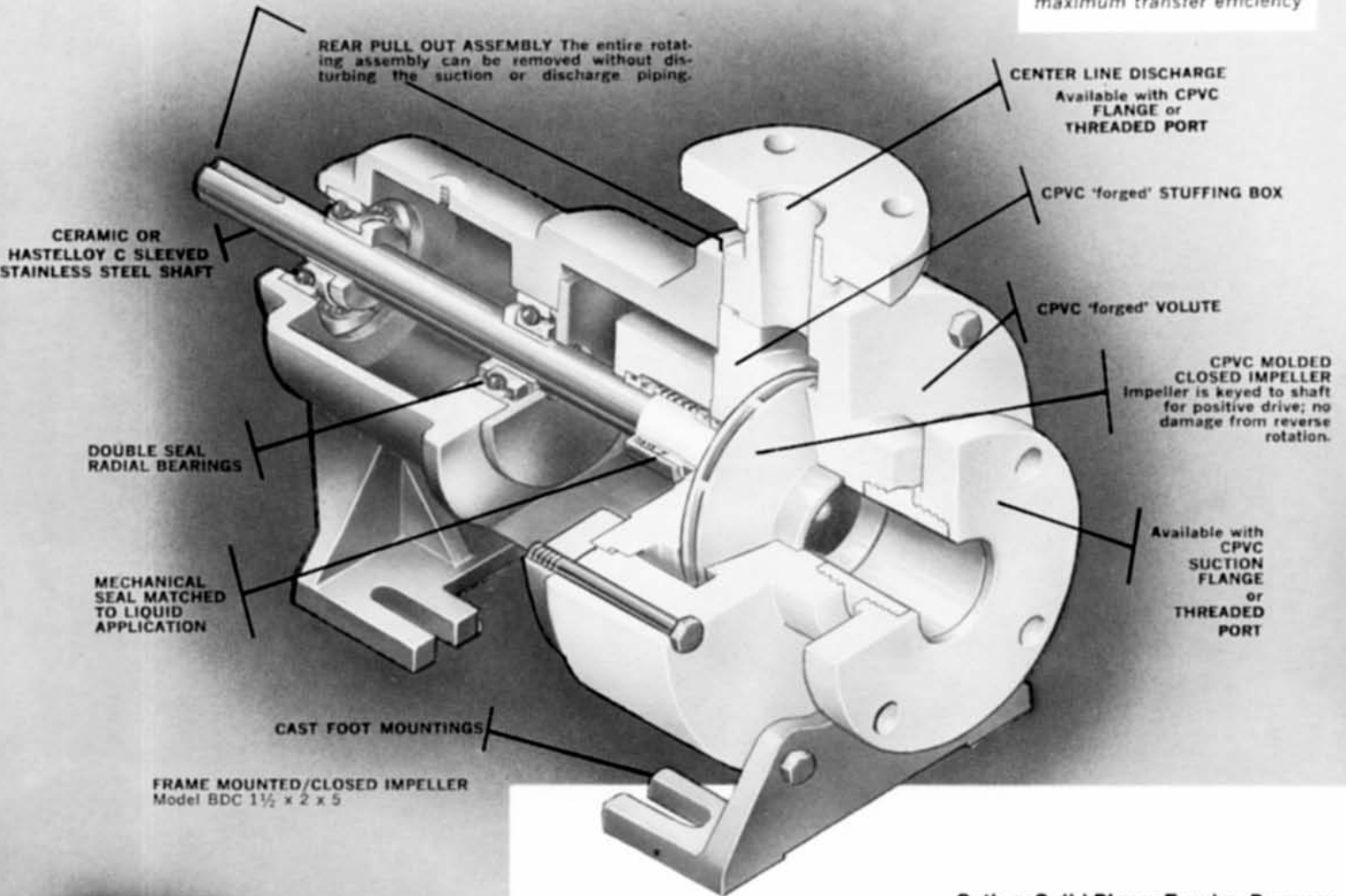
PLEASE BE SPECIFIC ABOUT YOUR APPLICATION in order that the proper materials may be furnished. Let SETHCO or an authorized distributor know: Names of your solutions, as well as temperatures, pH and tank sizes of each.

a new first in high strength construction and engineering features

'forged' CPVC for longer pump life

with a choice of interchangeable 'wet end' (casing and impeller)

with CLOSED IMPELLER
for clean liquids and
maximum transfer efficiency



Sethco Solid Phase Forging Process Enhances All The Advantages of CPVC

The Sethco "forged" CPVC BD/CD Series is a standard pump built to meet the challenging demands of today's chemical processing and waste treatment pumping requirements. Rigid CPVC (chlorinated polyvinyl chloride), the material of construction for this family of pumps has two highly desirable characteristics; outstanding mechanical strength at high temperatures and excellent chemical resistance to concentrated acids and alkalis.

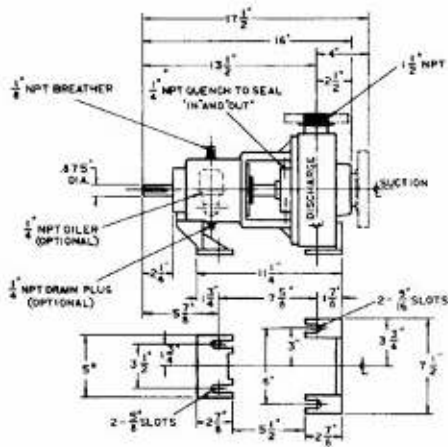
When it comes to accurate fabrication of heavy walled pump components no method matches the fidelity and uniformity of Sethco's high energy "forging". The strength, resistance to corrosion, dimensional stability and density of pure CPVC is greatly enhanced in the "forged" casing and stuffing box cover. Sethco's design and construction features do the rest. The results are trouble-free operation, resistance to a wider range of corrosive solutions at higher temperatures and longer overall pump life.

The upper working temperature limit of 215°F for CPVC is 60°F above that of PVC. For pressure piping applications 180°F is recommended. As a typical example, Sethco CPVC casing can be used safely to handle 80% sulfuric acid at 180°F and 90 psi. The CPVC qualities of high mechanical strength and corrosion resistance when handling other hot corrosives enable the pump to operate at a wider range of temperatures and pressures. Other CPVC advantages are its low friction factor, light weight, immunity to galvanic corrosion and inertness to most inorganic solutions.

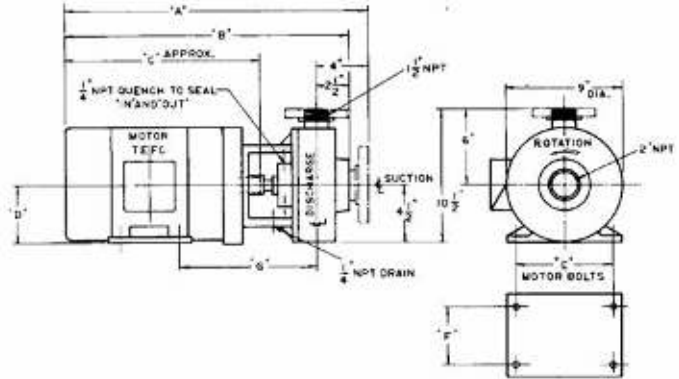
PUMP ONLY

CLOSE COUPLED

CLOSED IMPELLER



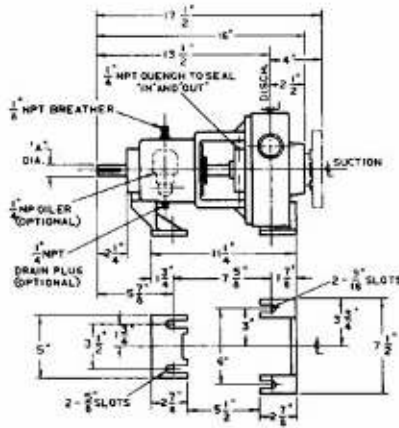
MODEL BDC



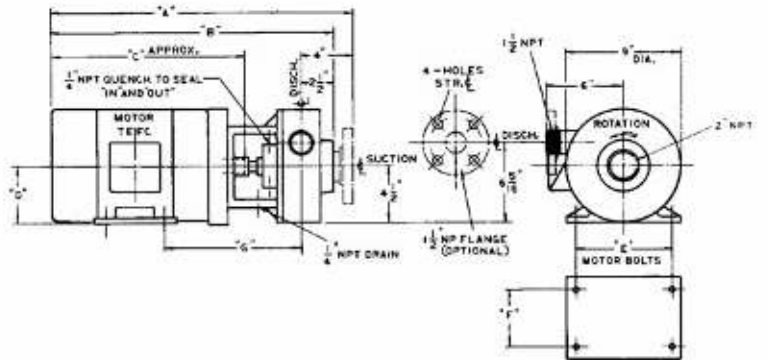
MODEL CDC

	FLANGE DIMENSIONS					
	SIZE	O.D.	THICK.	B.C.D.	NO. HOLES	DIA. HOLES
SUCTION	2"	6"	3/4"	4 3/8"	4	3/4"
DISCHARGE	1 1/2"	5"	11/16"	3 1/8"	4	5/8"
MOTOR	DIMENSIONS					
	FRAME	C	D	E	F	A B G
54	13"	3 1/2"	4 7/8"	3"	22 1/8"	20 5/8" 9 3/4"
143 TC	12"	3 1/2"	5 1/2"	4"	21 5/8"	20 1/8" 10 1/8"
145 TC	13"	3 1/2"	5 1/2"	5"	22 5/8"	21 1/8" 10 1/8"
182 TC	14 5/8"	4 1/2"	7 1/2"	4 1/2"	24 1/8"	22 5/8" 11 1/8"
184 TC	15 5/8"	4 1/2"	7 1/2"	5 1/2"	25 1/8"	23 5/8" 11 5/8"
213 TC	17 3/4"	5 1/4"	8 1/2"	5 1/2"	27 1/8"	26 3/8" 12 3/4"
215 TC	19 1/4"	5 1/4"	8 1/2"	7"	29 1/8"	27 5/8" 12 3/4"

OPEN TORQUE IMPELLER

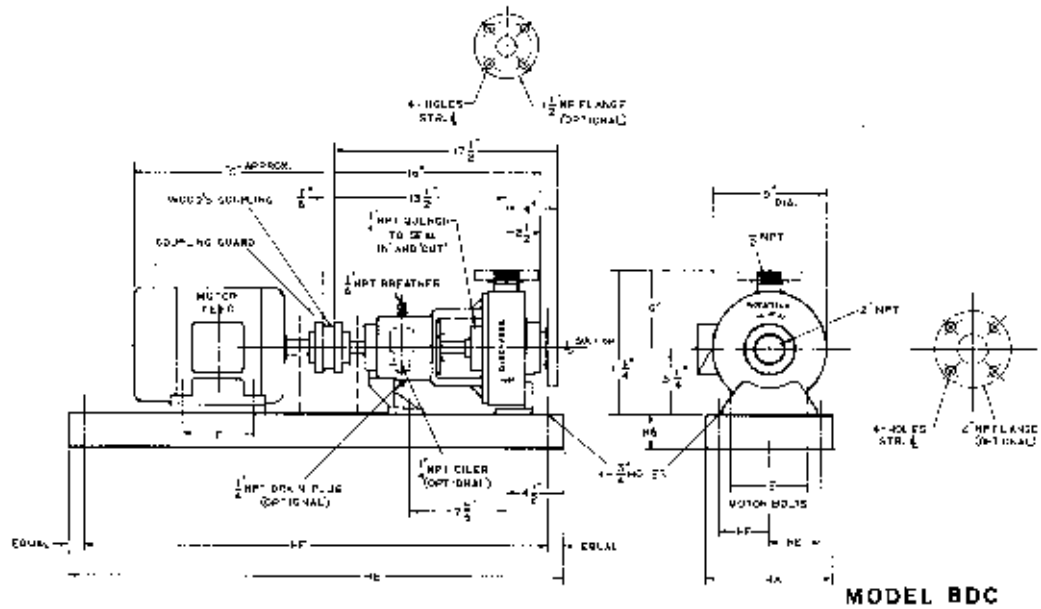


MODEL BDT



MODEL CDT

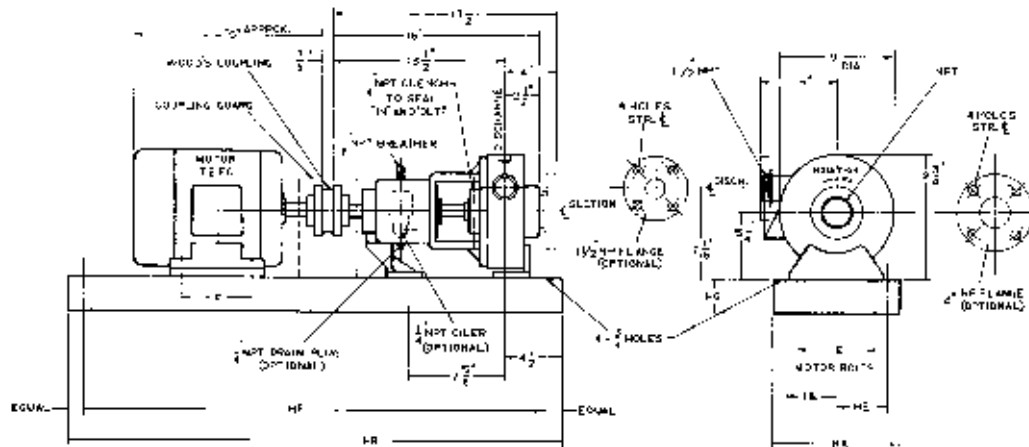
FRAME MOUNTED



DIMENSIONAL DRAWINGS

MOTOR FRAME	DIMENSIONS							PUMP SUCTION FLANGE	DISCH. FLANGE	ISO LEANS FLANGE
	E	F	HA	HB	HC	HD	HE			
50	12 1/2	4 1/2	2					2 1/2	2 1/2	1 1/2
100	12 1/2	5 1/2	4					3	3	2
150	13	5 1/2	5	10	35	4	3 1/2	3 1/2	3 1/2	2 1/2
192	14 1/2	7 1/2	4 1/2					4 1/2	4 1/2	3 1/2
244	15 1/2	7 1/2	5 1/2					5 1/2	5 1/2	4 1/2
292	17 1/2	8 1/2	5 1/2	12	40	4 1/2	3 1/2	5 1/2	5 1/2	4 1/2
352	18 1/2	10 1/2	6 1/2					6 1/2	6 1/2	5 1/2

FLANGE DIMENSIONS					
SIZE	W	THICK	B.C.D.	NO. HOLES	HOLE
1 1/2	5	1 1/2	3 1/2	4	5/8
2	6	2 1/4	4 1/4	4	3/4



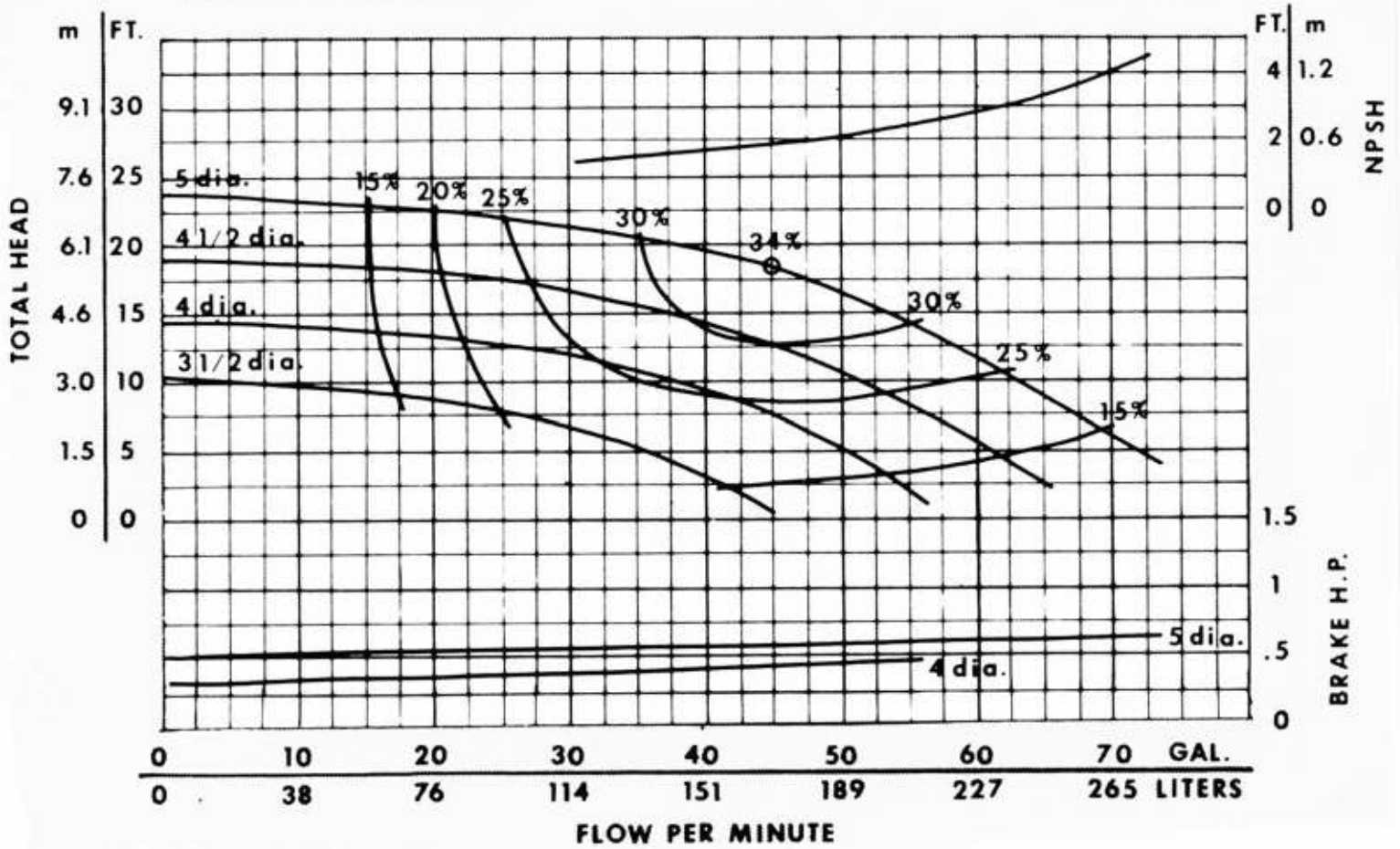
MODEL BDT

Sethco Model BD/CD Series design features include:

- 'Forged' CPVC with smooth inner surfaces
- Vibration-free quiet operation
- Fewer parts, dimensional stability for minimum maintenance and supervision
- Compact design, light weight
- Simple installation
- Continuous duty, dependable service
- Low NPSH required

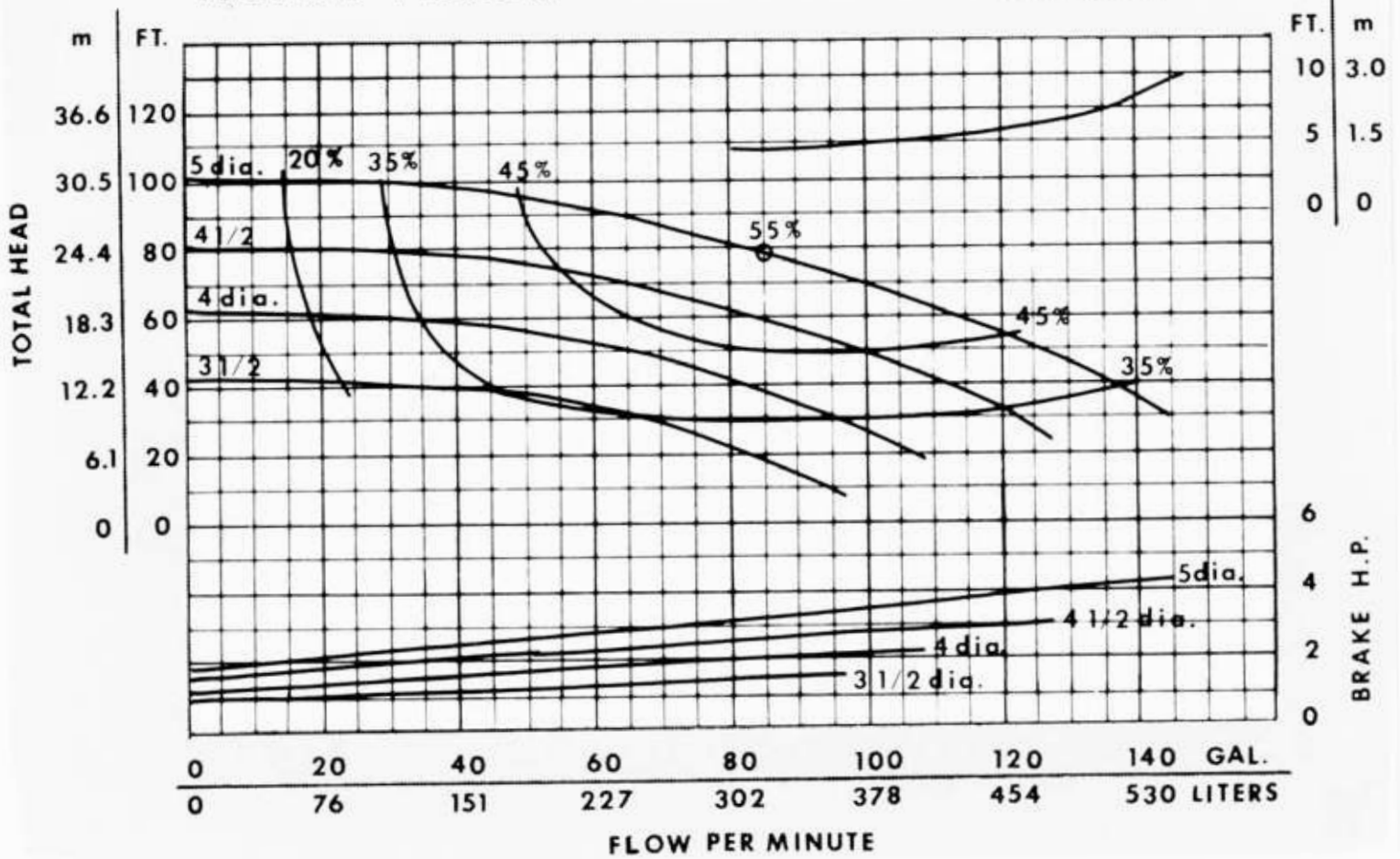
BDC & CDC 1 1/2 X 2 X 5

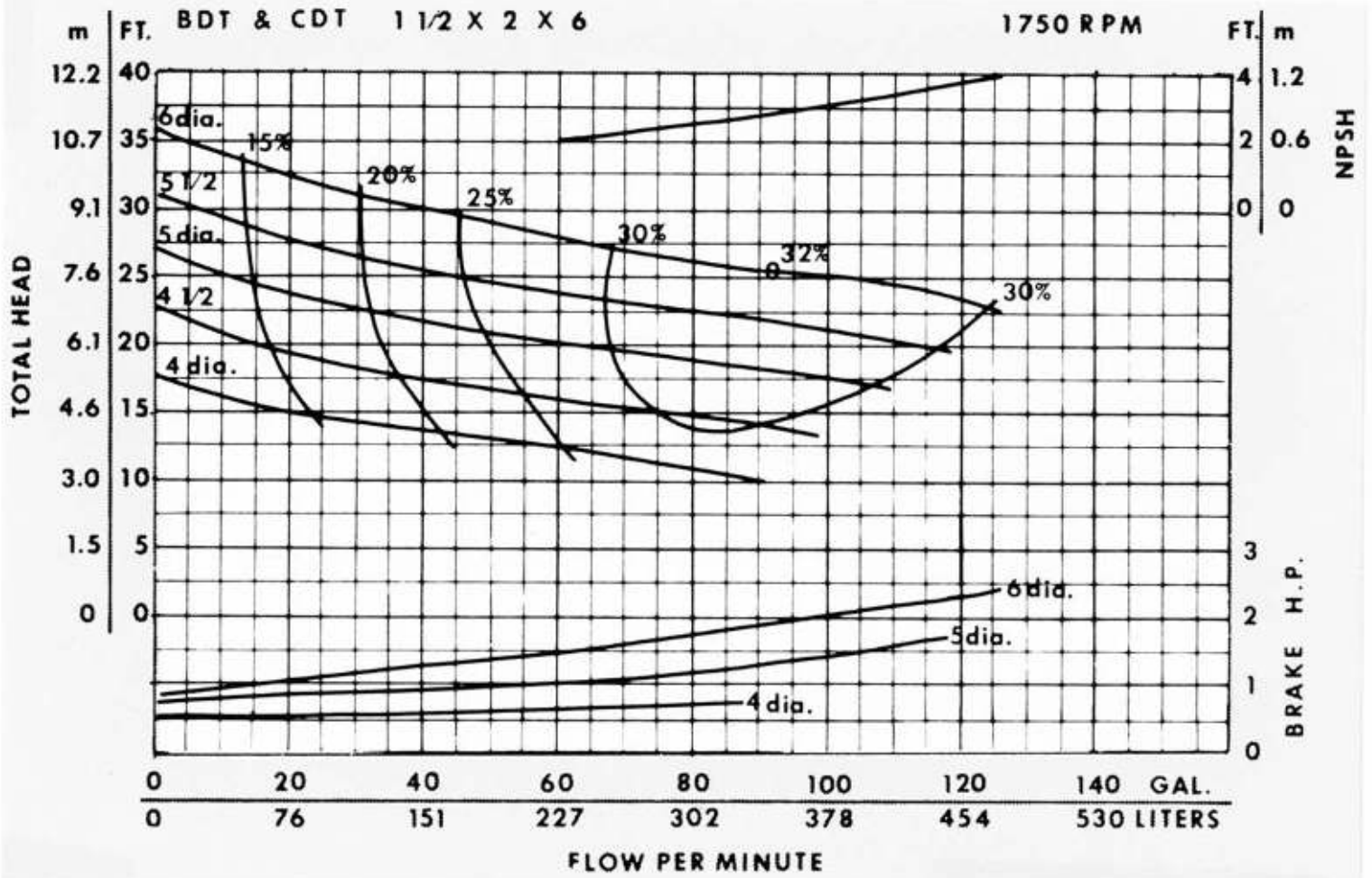
1750 RPM



BDC & CDC 1 1/2 X 2 X 5

3500 RPM





BDT & CDT 1 1/2 X 2 X 6

3500 RPM

