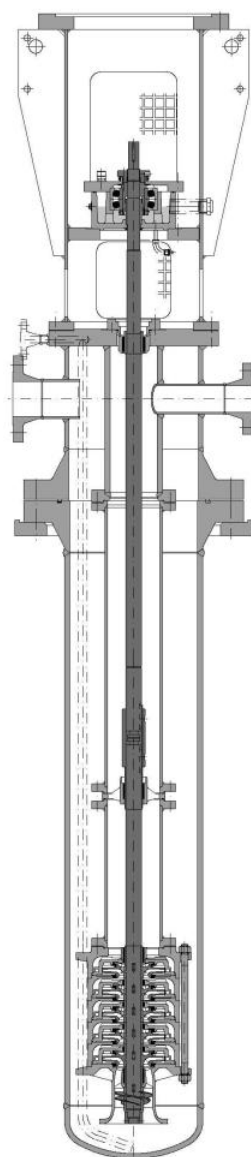


WU

G205XXX - 05/06 (ru)



WUC

:

WUC-

G205

:

:

/

:

m³/h

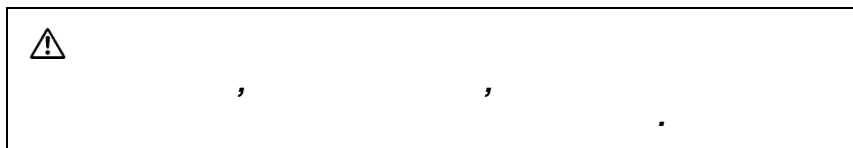
m³/h

:

mFs

:

min⁻¹



		6.5	.....26
		6.6	.....27
		6.7	.....27
		6.8	.....27
		6.9	.....28
1.0	.....4		
1.1	.....4		
1.2	.....4		
1.3	...4		
1.4	.....5		
1.5	.....5		
1.6	.....5		
1.7	.....8		
1.8	.....9		
1.8	.....9		
1.9	.....9		
2.0	.....11		
2.1	.....11		
2.2	.....11		
2.3	.....11		
2.4	.....11		
2.5	.....11		
	.....11		
3.0	.....12		
3.1	.....12		
3.2	.....12		
3.3	.....12		
3.4	.....12		
4.0	.....12		
4.1	.....13		
4.2	.....13		
4.3	.....13		
4.4	.....14		
4.5	.....15		
4.6	.....17		
4.7	.....17		
4.8	.....17		
5.0	.....18		
5.1	.....18		
5.2	.....18		
5.3	.....21		
5.4	.....21		
5.5	.....21		
5.6	.....21		
5.7	.....21		
	.....21		
5.8	.....22		
5.9	.....22		
5.10	.....22		
5.11	.....23		
6.0	.....24		
6.1	.....24		
6.2	.....24		
6.3	.....25		
6.4	.....26		
		7.0	.....28
		7.1	.....28
		8.0	.....29
		9.0	.....31
		10.0	.....31
		10.1	.....31
		10.2	.....31
		10.3	.....31
		10.4	.....32

1.0 _____

1.1



Flowserve

1.3

Flowserve

Flowserve

Flowserve

Flowserve

Flowserve



Flowserve

Flowserve

Flowserve

1.2

1.4



Flowserve.

1.5



Flowserve



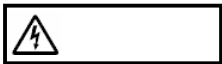
(,) ,

Flowserve

1.6



1.6.1



1.6.2



» , «

1.6.3

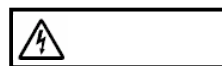


(5 « ».)



().

25 (55)



(5 « ».



(5 « »).





250°C (482°F),




68°C (175°F)

5°C (20°F),


1.7


FLOWSERVE (Austria GmbH)
Pump Division





⚠ WARNING


ESSENTIAL PROCEDURES BEFORE STARTING!


- 


INSTALL AND OPERATE EQUIPMENT ONLY IN ACCORDANCE WITH THE INSTRUCTION MANUAL SUPPLIED SEPERATELY!
- 


ENSURE GUARDS ARE SECURELY IN PLACE!
- 


ENSURE CORRECT DIRECTION OF ROTATION!
- 

ENSURE ALL EXTERNAL CONNECTIONS TO THE PUMP/ SHAFT SEALING AND DRIVER ARE CONNECTED AND OPERATIONAL!
- 


FILL PRIME UNIT AND SYSTEM. DO NOT RUN DRY!
- 


ENSURE UNIT ON A FIRM FOUNDATION AND THAT COUPLING FACES ARE IN CORRECT ALIGNMENT PRIOR TO AND AFTER BOLTING BASEPLATE DOWN AND FIXING PIPEWORK.
- 

SEE MANUAL FOR TOLERANCES.
- 

ENSURE CORRECT DRIVER DIRECTION OF ROTATION WITH COUPLING ELEMENT/ PINS REMOVED. OTHERWISE SERIOUS DAMAGE MAY RESULT!
- 

⚠ CAUTION

- 

THIS MACHINE MUST BE FILLED WITH OIL BEFORE STARTING!
- 

FAILURE IN FOLLOWING THESE PROCEDURES MAY RESULT IN PERSONAL INJURY/ OR EQUIPEMENT DAMAGE!

1.8

« ».

1.5

.....

.....

1.9

85 dBA,

.....

.....

.....

85 dBA,

.....

.....

EN ISO 3744

1 (3,3)

«

».

« »

1	(A)	63	125	250	500	1K	2K	4K	8K
3000 /	70	60	64	64	62	62	62	60	55
1500 /	64	54	58	58	56	56	56	54	49
3600 /	72	62	66	66	64	64	64	62	57
1800 /	64	54	58	58	56	56	56	54	49
3									
3000 /	72	62	66	66	64	64	64	62	57
1500 /	66	56	60	60	58	58	58	56	51
3600 /	74	64	68	68	66	66	66	64	59
1800 /	67	57	61	61	59	59	59	57	52
4									
3000 /	73	63	67	67	65	65	65	63	58
1500 /	68	58	62	62	60	60	60	58	53
1800 /	69	59	63	63	61	61	61	59	54
5									
3000 /	74	64	68	68	66	66	66	64	59
1500 /	69	59	63	63	61	61	61	59	54
1800 /	70	60	64	64	62	62	62	60	55
6									
1500 /	70	60	64	64	64	62	62	60	55
1800 /	71	61	65	65	63	63	63	61	56
7									
1500 /	71	61	65	65	63	63	63	61	56
1800 /	72	62	66	66	64	64	64	62	57

	0	1	2	4	6	9	10
	3	2,5	2	1,5	1	0,5	0

1) 1,5

2)

3) L-109-0.

4)

10⁶

1,5 dB(A)

1 (0,00002)

A.

75-125 %

74 - 62	126 - 136	+1
61 - 50	137 - 150	+2
49 - 38		+3
37 - 25		+4

2.0 _____

2.1



25 (55),

Flowserve;

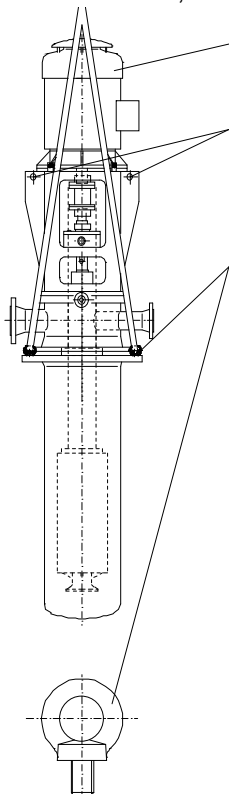


(4 « »).

2.4

2.2

2.3



2) Ø 45 (1,77

4- DIN 580

2.4.1

1

1

Flowserve

2.5



WUC

WUJ =

2

4 = 4-

2

M

L =

H =

R =

5

3.0 _____

I

3.1

WUC

D

()

Flowserve –

3.3

3.3.1

3.3.2

WUC

3.3.3 Can ()

3.3.4

3.4



3.2

200WUC-2M-5+I

200

4.0 _____



4.3.2

1.6.4. «

4.1

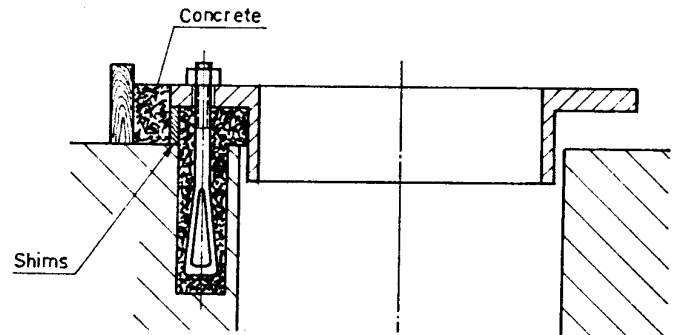
4.3.3

4.2

(.) .

6.9.

4.3



20-30 (0,8-1,2)

Concrete Shims

4.3.1

4.3.4

(19,7) ,

6



-0,5 /

1)

[4145]

2)

() [4145]

3) (.) .

[414]

6 « »)

[414] (

[413]

4)

[423],

5)

[414].

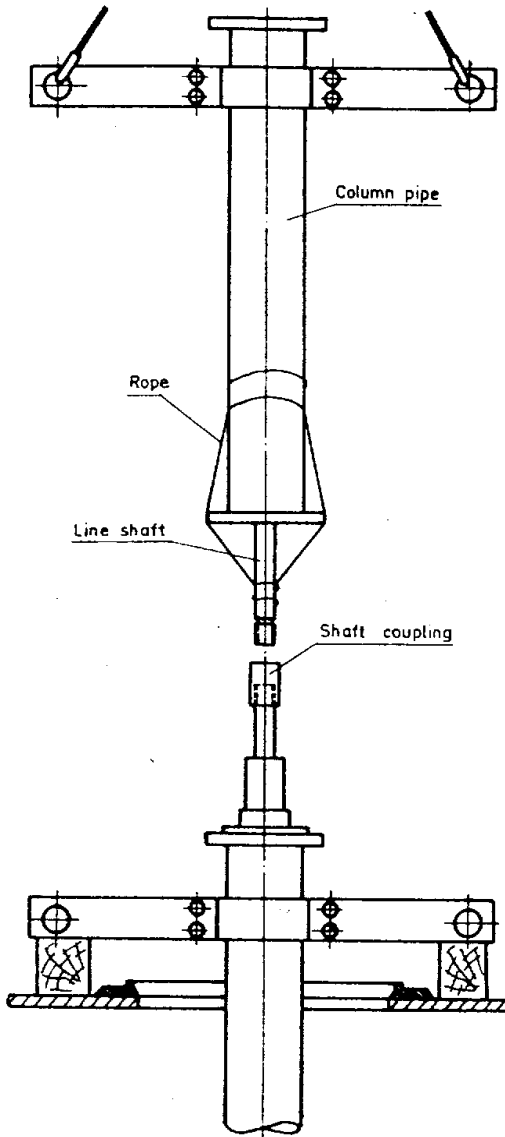
(.) .

[413],
[4231]

1-5

[423].

[413]



[424]

[4132]

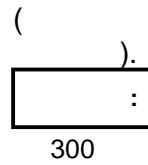
[479]

« (»).

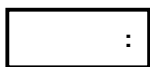
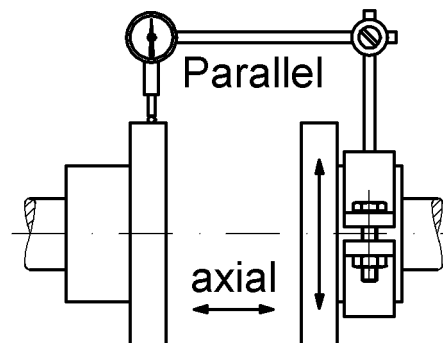
6

4.4

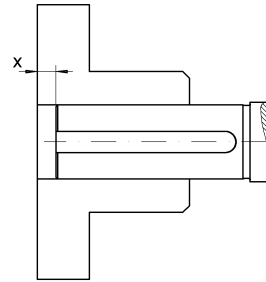
300



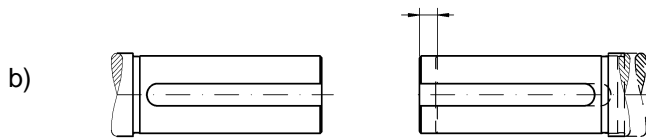
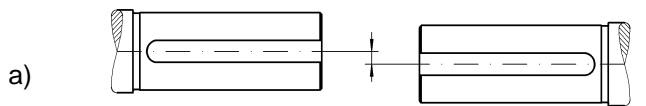
7.



4.4.1



(0,002 ± 1), (0,004), 0,05



a)

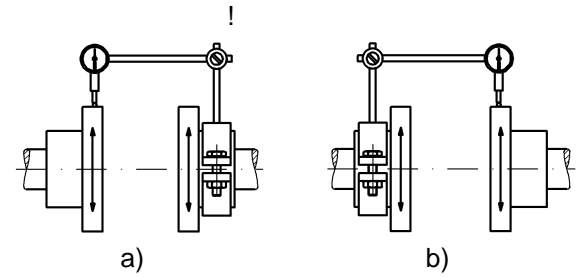
b)

DBSE ()

« »).

(. 5.3.1

"x"



a)

b)

200

4.5

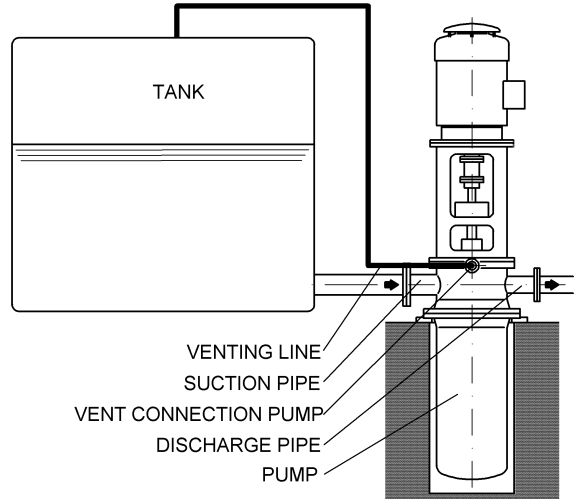
4.5.1

a)

b)

(, .)

c)



Y-

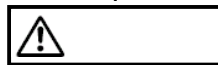
40.



4.5.2

(

API plan 13)



(

).

4.5.3

4.7

4.6



IEC60079-14.



4.8



Flowserve.

Flowserve



()



5.4

« ».

5.0 _____



!

5.1

a)

b)

c)

30 °C (54 °F)

2
()

(T > 100 °C (212 °F))

50 °C (78 °F)

10

d)

()

e)

f)

(, . .)

g)

h)

), (,)

i)

()

5.2

5.2.1

5.2.6.

5.2.2

() 1/4"



0,02 (0,29 0,01 (0,14) ,)

5.2.3

200

2000

6

5.2.4



5.2.5

10 (50F) 10°C
 (104F) 40°C
 (50F) 20 10°C
 (185F) 85°C

5.2.6

	(Fl.oz.)	
0 N	0.5 (16.9)	7210 BECBJ
1 N	1.5 (50.7)	7313 BECBJ
3 N	2 (67.6)	7315 BECBJ
4 N	2.5 (84.5)	7317 BECBJ
5 N	3 (101.4)	7318 BECBJ
6 N	5 (169)	7322 BECBJ
7 N	6.5 (219.8)	7326 BECBJ

5.2.7

/							
		+40 °C - +70 °C (+104 °F - +158 °F)		+70 °C - +100 °C (+158 °F - +212 °F)		+100 °C - +120 °C (+212 °F - +248 °F)	
		-5 °C - +40 °C (-23 °F - +104 °F)		-5 °C - +40 °C (-23 °F - +104 °F)		-50 °C - +40 °C (-58 °F - +104 °F)	
Mobil	MOBIL SHC 624(synthetic) MOBIL DTE 24	32,4 ¹ 31 ¹	Mobil DTE 27	95 ¹	Mobil SHC 629 (synthetic)	143 ¹	
BP	Energol HLP-HM 32 Energol HLP-HM 46	32 ¹ 46 ¹	Energol HLP-HM 100	94 ¹			
Shell	Shell Turbo T 46	49 ¹	Shell Turbo T 100	100 ¹	Shell Morlina 220	220 ¹	
Esso	TERESSO 32 TERESSO 46	30 ¹ 43 ¹	NUTO 100 NUTO 150	100 ¹ 150 ¹	NUTO 220	220 ¹	
Castrol	Hyspin AWS 32	32 ¹	Alpha SP 100	100 ¹	Alpha SP 220 Alphasyn T 150 (synthetic)	220 ¹ 150 ¹	
OMV	OMV turb HTU 46	46 ¹	OMV turb HTU 100	100 ¹	OMV turb HTU 460	460 ¹	
Aral	Aral Degol BG 46 Aral Vitam GF 46	46 ¹ 46 ¹	Aral Degol BG 100	100 ¹			

-5°C (-23°F)

SAE 5W-50

API-SJ.

/			
	(-40°F)	-40°C	. 10-15 40°C (104°F) -40°C (-40 °F) 80°C (176°F)
	(-76 °F)	-60°C	/
?	40°C (104°F)	[2/] DIN 51562	

5.3

3 (0,12),

5.4



d)

(0 °C (32 °F))

5.7 «

e)

»

/



5.7

5.5

1)

()

5.6

2)

30 °C (54 °F)

3)

()

a)

–

b)

()–

10

c)

1)

2)

30

3)

500 / 5,

/ (0,2 /) (API 610)

4)



30

5)

c)
d)

Note:

3

6)

10

5.9

a)

7)

b)

80°C (176°F).

5.7.1



10

(= + 10°C (50°F))



c)

5

d)

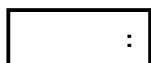
5.8

a)

3 (0,12) (

()

)



e)

b)

5.10

a)

b)

c)

d)

(NPSHA>NPSHR),

5.11

5.11.4

(NPSHA)

(NPSHA.)

(NPSHR.)

Flowserve.

NPSHA >NPSHR.

NPSHA >NPSHR

5.11.1

NPSHA

()

Flowserve

5.11.5

5.11.2

Flowserve.

5.11.3

6.0 _____

6.1



(1.6.2.)

5.10.

6.2



« ».

5

a)

b)

c)

d)

e)

f)

g)

h)

c)

a) « 8 **6.3**

b) **6.3.1**

c) Flowserve.

6.2.1

(/)



- 1.
- 2.
- 3.
- 4.

: CAN ():
10 WUC-2H, G202222/01
1 425

a)

b)

(
)

c)

()

d)

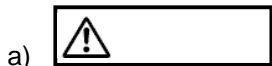
e)

f)

Flowserve.

6.2.2

6)



6.3.2

b)

(6)

6.4

	1 - 3	4 - 6	7+	1 - 3	4 - 6	7 - 9	10+
() (1)				1	1	1	1
				1	1	1	1
							1
()							1
							1
()				1	1	2	1
				1	1	2	3
()	1	1	1	1	1	2	3
()	1	2	3	1	2	3	3
()	1	2	3	1	2	3	3
()	1	1	1	1	1	1	5
(Cartridge)	1	2	3	1	2	3	3
	1	2	3	1	2	3	3
()	1	2	3	1	2	3	3
()	1	1	2	1	1	3	3
()	1	1	2	1	1	3	3

(1)

() () ()

6.5

M _A ()						
	8.8			1.4401/ 1.4301		
	MoS ₂ -			MoS ₂ -		
M 6	8,6 (6,3)	9,9 (7,3)	10,5 (7,7)	2,8 (2,1)	3,2 (2,4)	3,5 (2,6)
M 7	14 (10)	16,5 (12,2)	17,5 (12,9)	4,5 (3,3)	5,3 (3,9)	5,7 (4,2)
M 8	21 (15)	24 (18)	26 (19)	6,8 (5)	7,9 (5,8)	8,4 (6,2)
M 10	42 (31)	48 (35)	51 (38)	13,5 (10)	15,5 (11,4)	17 (13)
M 12	72 (53)	83 (61)	89 (66)	24 (18)	27 (20)	29 (21)
M 14	114 (84)	132 (97)	141 (104)	37 (27)	43 (32)	46 (34)
M 16	174 (128)	200 (148)	215 (159)	57 (42)	66 (49)	71 (52)
M 18	240 (177)	275 (203)	295 (218)	79 (58)	91 (67)	97 (72)
M 20	340 (251)	390 (288)	420 (310)	111 (82)	128 (94)	138 (102)
M 22	455 (336)	530 (391)	570 (420)	149 (110)	173 (128)	186 (137)
M 24	580 (428)	675 (498)	725 (535)	191 (141)	220 (162)	235 (173)
M 27	855 (631)	995 (734)	1070 (789)	280 (207)	325 (240)	350 (258)
M 30	1160 (856)	1350 (996)	1450 (1069)	380 (280)	445 (328)	475 (350)
M 33	1470 (1084)	1707 (1260)	1829 (1349)	485 (358)	560 (413)	600 (443)
M 36	1896 (1398)	2205 (1627)	2360 (1741)	625 (461)	723 (534)	775 (572)

6.6

5 « 3)
» 4)
5)

6.7



1.6 « ».
/) 0,04 / (0,0005
0,08 (0,003)

Flowserve.

6.7.1

0 N	7210 BECBJ
1 N	7313 BECBJ
3 N	7315 BECBJ
4 N	7317 BECBJ
5 N	7318 BECBJ
6 N	7322 BECBJ
7 N	7326 BECBJ

6.7.1.1

3N – 7N

1) [477], [443], [463], [4761]
2) [463], [477].

6.7.1.2

0N – 1N

1) [477], [443], [463].
2) [463], [477].

6.8

1)

2)

	()	()
10 WU-2H	64 (2.5)	0.3 - 0.5 (0.012-0.020)
20 WU-2L	64 (2.5)	0.3 - 0.5 (0.012-0.020)
20 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
25 WU-2R	115 (4.5)	0.4 - 0.6 (0.016-0.024)
30 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
35 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
40 WU-2H	95 (3.7)	0.4 - 0.6 (0.016-0.024)
45 WU-2L	87 (3.4)	0.3 - 0.5 (0.012-0.020)
45 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
50 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
50 WU-2M	85 (3.3)	0.4 - 0.6 (0.016-0.024)
50 WU-2H	140 (5.5)	0.5 - 0.7 (0.020-0.028)
60 WU-2M	85 (3.3)	0.4 - 0.6 (0.016-0.024)
60 WU-2R	112 (4.4)	0.4 - 0.6 (0.016-0.024)
65 WU-2R	148 (5.8)	0.5 - 0.7 (0.020-0.028)
80 WU-2L	103 (4.1)	0.4 - 0.6 (0.016-0.024)
80 WU-2H	148 (5.8)	0.5 - 0.7 (0.020-0.028)
90 WU-2R	148 (5.8)	0.5 - 0.7 (0.020-0.028)
100 WU-2R	148 (5.8)	0.5 - 0.7 (0.020-0.028)
100 WU-2M	120 (4.7)	0.5 - 0.7 (0.020-0.028)
125 WU-2L	120 (4.7)	0.5 - 0.7 (0.020-0.028)
150 WU-2R	169 (6.7)	0.5 - 0.7 (0.020-0.028)
150 WU-2M	125 (4.9)	0.5 - 0.7 (0.020-0.028)
180 WU-2L	135/171(5.3/6.7)	0.5 - 0.7 (0.020-0.028)
200 WU-2M	160 (6.3)	0.5 - 0.7 (0.020-0.028)
200 WU-2L	160 (6.3)	0.5 - 0.7 (0.020-0.028)
200 WU-2R	169 (6.7)	0.5 - 0.7 (0.020-0.028)
200 WU-2H	140/165(5.5/6.5)	0.5 - 0.7 (0.020-0.028)
200 WU-4M	180 (7.1)	0.5 - 0.7 (0.020-0.028)
250 WU-4H	200 (7.9)	0.6 - 0.8 (0.024-0.032)
275 WU-2M	160 (6.3)	0.5 - 0.7 (0.020-0.028)
300 WU-2R	183 (7.2)	0.5 - 0.7 (0.020-0.028)
300 WU-4H	230(9.1)	0.6 - 0.8 (0.024-0.032)
300 WU-4M	190/230(7.5/9.1)	0.5 - 0.7 / 0.6 - 0.8 (0.020-0.028 / 0.024-0.032)
300 WU-2L	160/190(6.3/7.5)	0.5 - 0.7 (0.020-0.028)
400 WU-4R	236 (9.3)	0.6 - 0.8 (0.024-0.032)
400 WU-4M	240 (9.5)	0.6 - 0.8 (0.024-0.032)
400 WU-4H	240 (9.5)	0.6 - 0.8 (0.024-0.032)
450 WU-2R	183 (7.2)	0.5 - 0.7 (0.020-0.028)
500 WU-2L	191 (7.5)	0.5 - 0.7 (0.020-0.028)
600 WU-4M	265 (10.4)	0.6 - 0.8 (0.024-0.032)
650 WU-2L	190/230(7.5/9.1)	0.5 - 0.7 / 0.6 - 0.8 (0.020-0.028 / 0.024-0.032)
700 WU-4H	265 (10.4)	0.6 - 0.8 (0.024-0.032)
800 WU-4M	300 (11.8)	0.6 - 0.8 (0.024-0.032)
900 WU-4M	265 (10.4)	0.6 - 0.8 (0.024-0.032)
900 WU-4H	300 (11.8)	0.6 - 0.8 (0.024-0.032)
1000 WU-4H	300 (11.8)	0.6 - 0.8 (0.024-0.032)
1200 WU-4H	330 (13.0)	0.7 - 0.9 (0.028-0.035)

1200 WU-4L	330 (13.0)	0.7 - 0.9 (0.028-0.035)
1400 WU-4M	354 (13.9)	1 - 1.2 (0.039-0.047)
1500 WU-4L	339 (13.4)	0.7 - 0.9 (0.028-0.035)
1600 WU-4M	339 (13.4)	0.7 - 0.9 (0.028-0.035)
2000 WU-4L	360 (14.2)	1 - 1.2 (0.039-0.047)
2000 WU-4M	360 (14.2)	1 - 1.2 (0.039-0.047)
2250 WU-4L	388 (15.3)	1 - 1.2 (0.039-0.047)

7.0 _____



6.9

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9.0 _____

Centrifugal Pumps - Nomenclature, Definitions, Application and Operation.

4:
ANSI B31.3 - Process Piping.

10.0 _____

10.1

10.2

Flowserve,

10.3

1:
NPSH for Rotodynamic Pumps: a reference guide, Europump Guide No. 1, Europump & World Pumps, Elsevier Science, United Kingdom, 1999.

2:
Pump Handbook, 2nd edition, Igor J. Karassik et al, McGraw-Hill Inc., New York, 1993.

3:
ANSI/HI 1.1-1.5

10.4

	ISO	ISO		,	,
		² / ₂	10,764 0,155		ft ² in, ²
	/	² /	4,4033	/	US gpm
			0,2248	-	lbf
			3,28084		ft
			0,9478		Btu
		μ	3,28084 0,03937 0,00003937		ft in, in,
			2,20462 0,035274		lb, oz,
		, ²	23,73		lb,ft ²
4					
			1,34102		hp
			14,5	/ ,	psi
		/			
	/	/ ²	145,0	/ ,	psi
		°C	(1,8 x °C) + 32		°F
			0,7376	-	lbf,ft
		,	0,001389	-	oz-in,
	/ /	/ /	3,28084 0,03937	/ /	ft/sec in./sec
3	/	/	0.03937	/	in./sec
	. /				
			264,2 33,81		US gal, Fl,oz,

1 ISO , ,
 2 ,
 3 ,
 4 LpA, 1 -20 , LwA 1 pW

Flowserve (Austria) GmbH
 Industriestraße B/6
 A-2345 Brunn/Geb., AUSTRIA /

: +43 / 2236 / 31530
 : +43 / 2236 / 31940
 : FPD-Brunn@flowserve.com

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: : +43-2236-31940

Flowserve:

Flowserve (Austria) GmbH
Industriestraße B6
2345 Brunn am Gebirge
Austria/

: +43 2236 31530
: +43 2236 377 540
: +43 2236 31582
: FPD-Brunn@flowserve.com

FLOWSERVE

:

USA and Canada

Flowserve Corporation
5215 North O'Connor Blvd.,
Suite 2300
Irving, Texas 75039-5421 USA
Telephone 1 972 443 6500
Fax 1 972 443 6800

Europe, Middle East, Africa

,

Worthing S.P.A.
Flowserve Corporation
Via Rossini 90/92
20033 Desio (Milan) Italy
Telephone 39 0362 6121
Fax 39 0362 303396

Latin America and Caribbean

Flowserve Corporation
6840 Wynnwood Lane
Houston, Texas 77008 USA
Telephone 1 713 803 4434
Fax 1 713 803 4497

Asia Pacific

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Flowserve Pte. Ltd
200 Pandan Loop #06-03/04
Pantech 21
Singapore 128388
Telephone 65 6775 3003
Fax 65 6779 4607