ITALGROUP SRL
IAC SERIES - IAC H5
GENERAL CATALOGUE
INDEX - IAC H5

IAC 1400 H5

Displacement (*)	[cc]	**1600**	**1499**	**1393**	**1313**	**1235**	**1150**	**1070**	**980**	**900**	**820**
Th. specific torque	[Nm/bar]	24,5	23,9	22,2	20,9	19,7	18,3	17	15,6	14,3	13
Continuous speed	[rpm]	370	400	410	435	440	460	480	490	495	520
Peak speed	[rpm]	450	500	500	500	550	550	575	600	600	600
Minimum speed	[rpm]	1	1	1	1	1	1	1	1	1	2
Mechanical efficiency	[%]	94,2	94	93,9	93,7	93,5	93,4	93,2	93	92,6	92,3
Starting efficiency	[%]	88,2	88	86,5	85,3	85,1	82,6	81,3	79,8	77,9	76
Continuous power (***)	[kW]	142	140	135	130	130	125	120	115	110	105
Cont. power with flushing	[kW]	172	170	165	155	155	150	145	138	132	126
Continuous pressure	[bar]	270	270	270	270	270	270	270	270	270	270
Intermittent pressure	[bar]	310	310	310	310	310	310	310	310	310	310
Peak pressure	[bar]	350	350	350	350	350	350	350	350	350	350
Flushing flow	[l/min]	12	12	12	12	12	12	12	12	12	12
Dry weight	[kg]	173	173	173	173	173	173	173	173	173	173

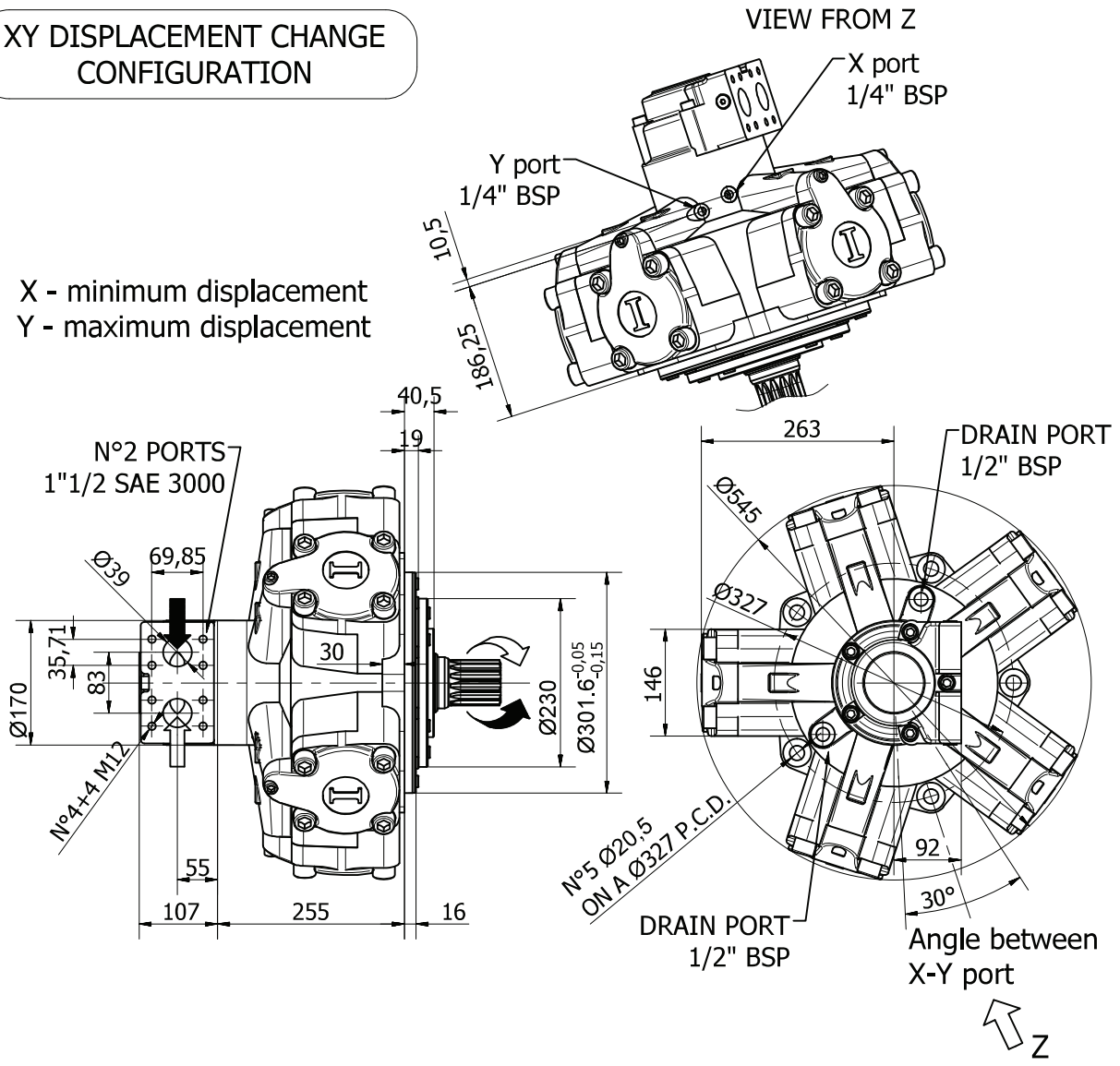
Displacement (*)	[cc]	**737**	**655**	**574**	**492**	**410**	**328**	**246**	**164**	**82**	**0**
Th. specific torque	[Nm/bar]	11,7	10,4	9,1	7,8	6,5	5,2	3,9	2,6	1,3	0
Continuous speed	[rpm]	545	600	600	600	600	600	600	600	1000	1000
Peak speed	[rpm]	650	700	700	700	800	800	800	800	1200	1500
Minimum speed	[rpm]	2	2	2	2	2	3	3	3	-	-
Mechanical efficiency	[%]	91	89,3	87	83	81,7	75,5	65,7	60,5	0	0
Starting efficiency	[%]	72,9	83,2	65	59,2	51	39	18	0	0	0
Continuous power (***)	[kW]	105	105	95	70	55	40	25	18	0	0
Cont. power with flushing	[kW]	126	126	110	90	75	55	35	22	0	0
Continuous pressure	[bar]	250	250	250	250	250	250	250	250	17(**)	17(**)
Intermittent pressure	[bar]	310	310	310	310	310	310	310	310	17(**)	17(**)
Peak pressure	[bar]	350	350	350	350	350	350	350	350	17(**)	17(**)
Flushing flow	[l/min]	12	12	12	12	12	12	12	12	15	15
Dry weight	[kg]	173	173	173	173	173	173	173	173	173	173

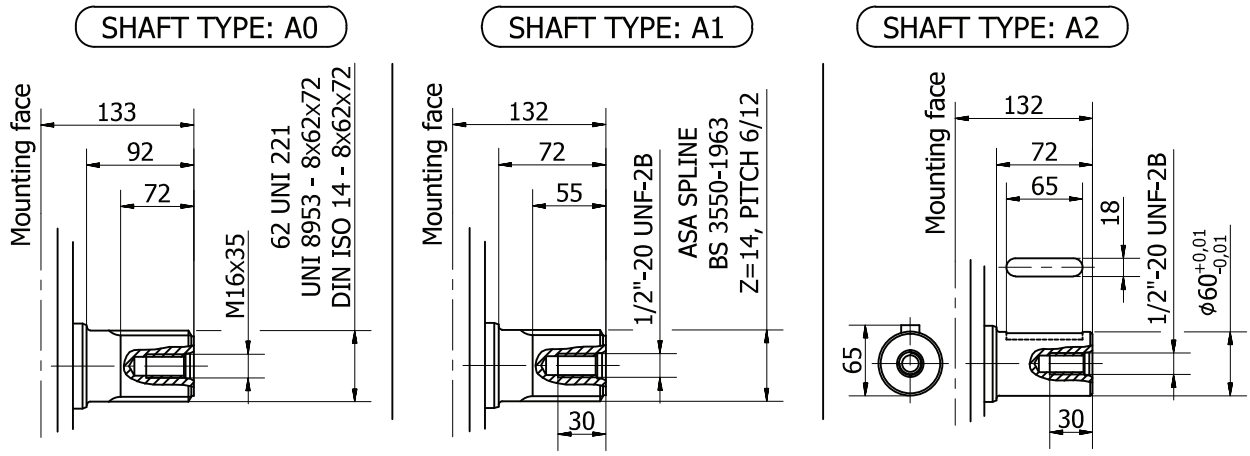
(*) Different displacements can be available on request. Please contact Italgroup S.r.l. for more information.
(**) Pressure limits at 1000 rpm. For lower speeds the values can be increased. Contact Italgroup for more information.
(***) The continuous power and the continuous power with flushing are the output maximum power. To estimate the input power divide the output power by the mechanical efficiency. For example: if required output power is 120 kW and starting efficiency is 88,2%, estimated required power is 120/0.882 = 136 kW.
Hydrostatic pressure test: 420 bar.
Temperature range: -30 / 70 °C.

Italgroup®
HYDRAULIC MOTORS
ITALY

XY DISPLACEMENT CHANGE CONFIGURATION

X - minimum displacement
Y - maximum displacement

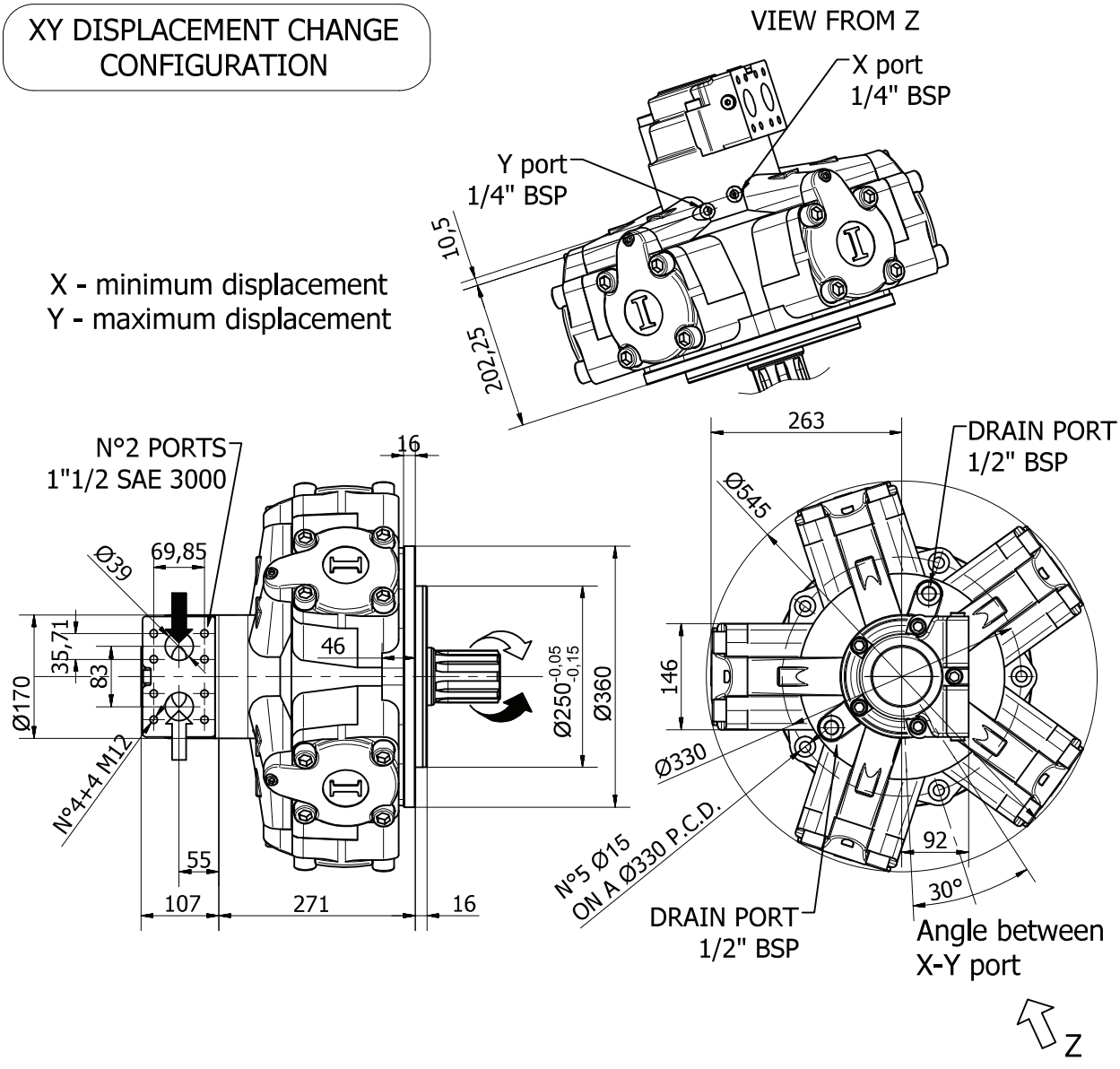




IAC 1400/C H5 - INSTALLATION DRAWING

XY DISPLACEMENT CHANGE CONFIGURATION

X - minimum displacement
Y - maximum displacement



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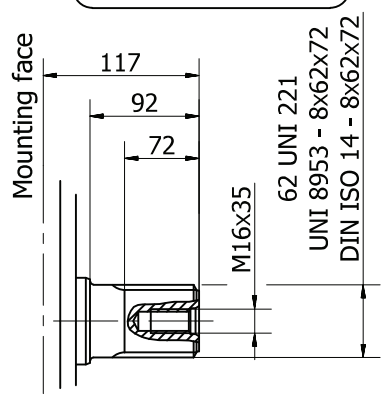

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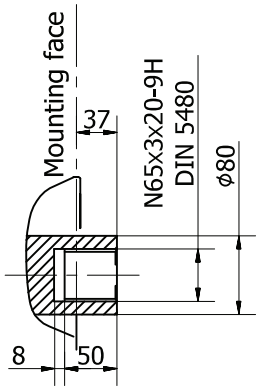
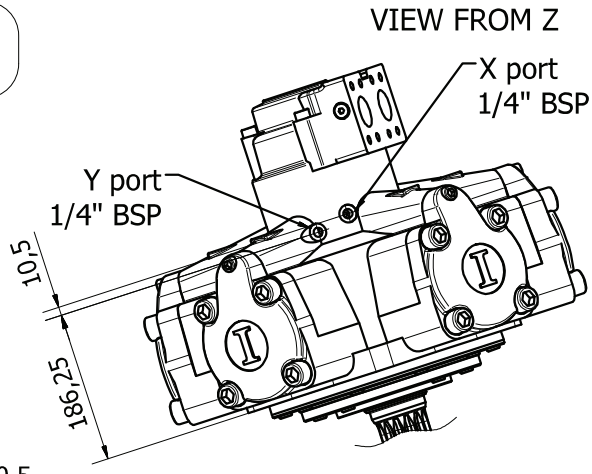
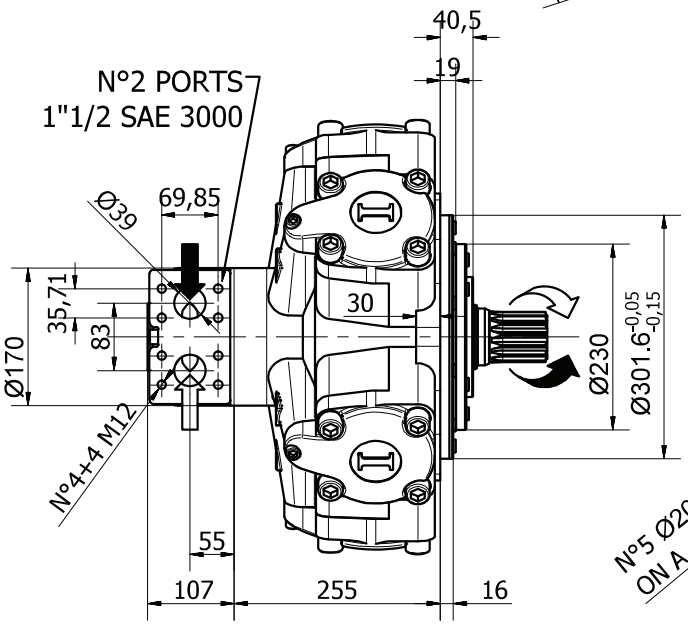


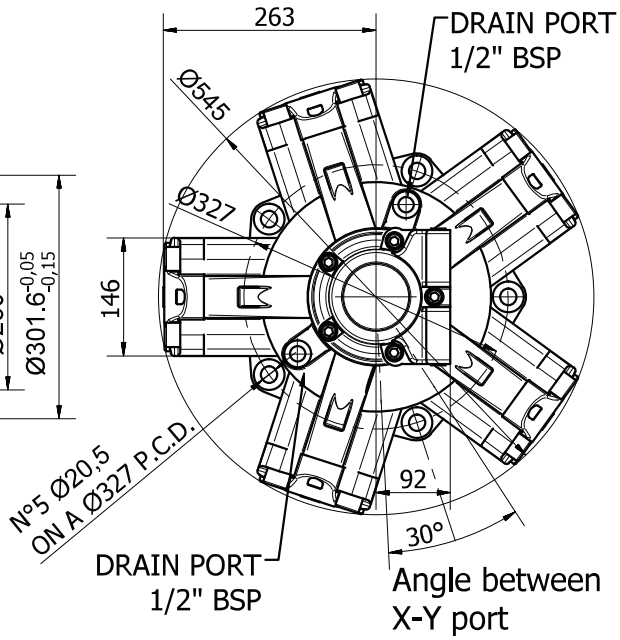
Italgroup® HYDRAULIC MOTORS ITALY

XY DISPLACEMENT CHANGE CONFIGURATION

X - minimum displacement
Y - maximum displacement







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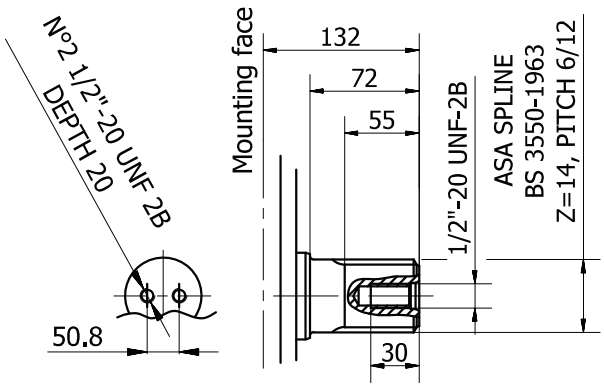
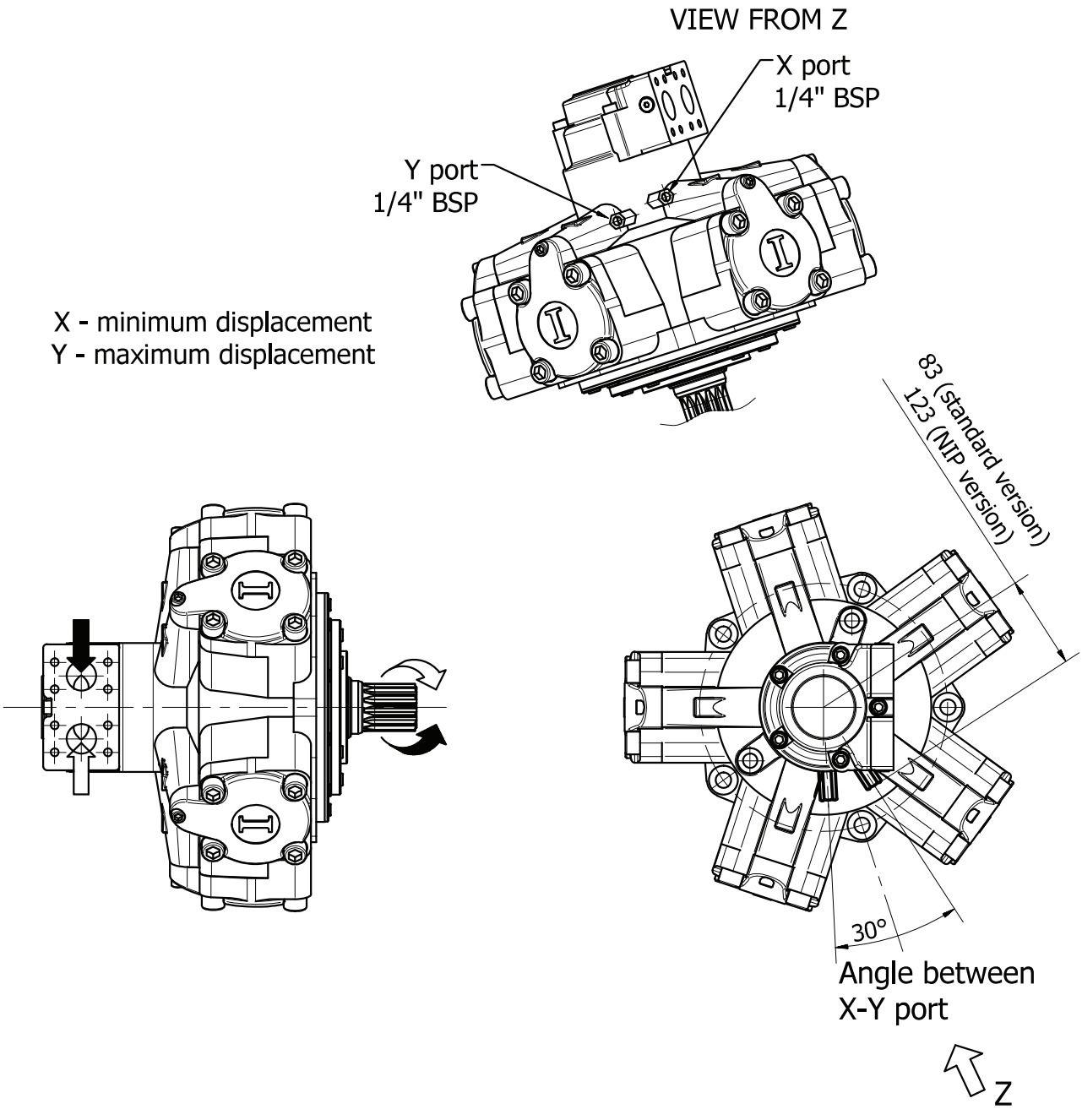
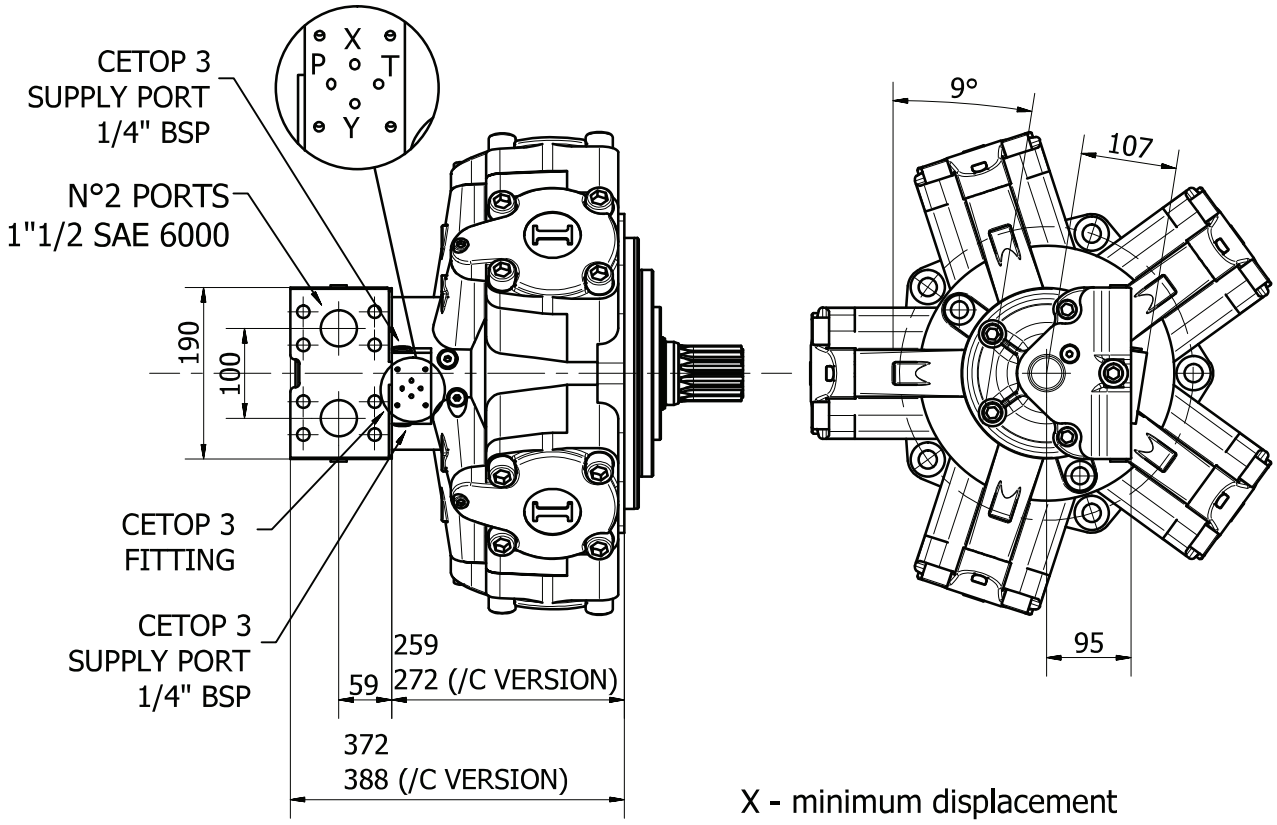


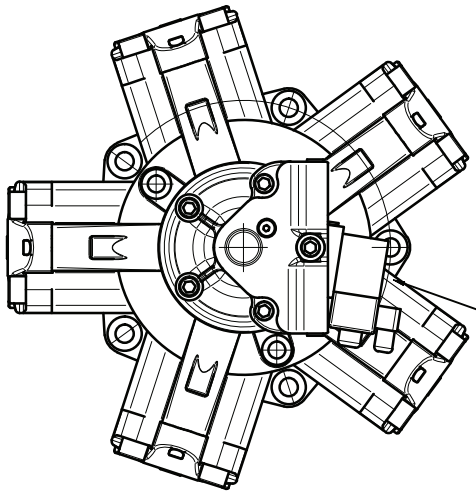
XY DISPLACEMENT CHANGE CONFIGURATION



CETOP 3 DISPLACEMENT CHANGE CONFIGURATION



X - minimum displacement
Y - maximum displacement



CETOP 3 DISPLACEMENT CHANGE VALVE
C3 - 12 SV (12V DC)
C3 - 24 SV (24V DC)
C3 - HY SV (HYDRAULIC OPERATED)

IAC 1400 H5 - ORDERING CODE

IAC | 1400 | - - | H5 | - - | - - | - - | - - | - - | - -

DISPLACEMENT
- 1400

INTERCHAGEABILITY
- /C
- /MRH

SERIE
- H5

SHAFT
- A0
- A1
- A2
- A3

DISTRIBUTOR
- D75
- D75J
- D90
- D90J

See pag. 122

TACHOMETER
- TA
- TB
- TT1
- TQ1
- EST
- EST30
- EST31

See pag. 126-128

SPECIAL FEATURES
- MP
- SPSL
- HPS
- CCW

See pag. 33

- NIP

See pag. 78

- Z - -

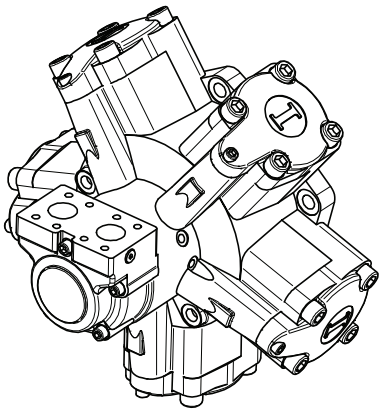
Italgroup internal code

MAXIMUM AND MINIMUM DISPLACEMENT

DISPLACEMENT CHANGE FITTING AND ACCESSORIES
- XY
- XY-SV
- C3-SV
- C3-12 SV
- C3-24 SV
- C3-HY SV
- C3-12 CSV
- C3-24 CSV
- C3-HY CSV

See pag. 27-32

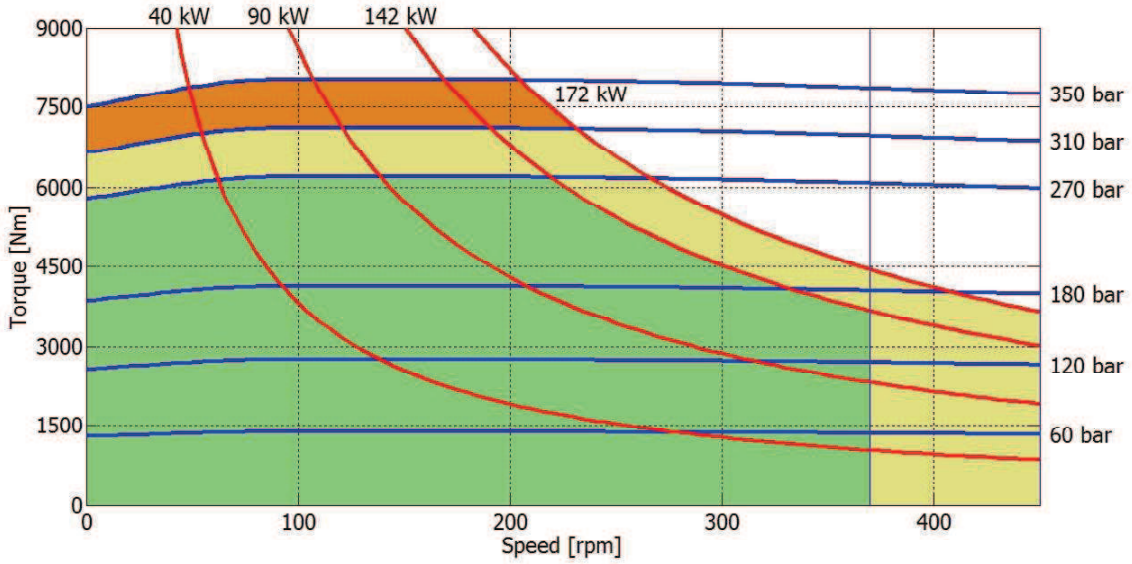
SV and CSV available only with D90



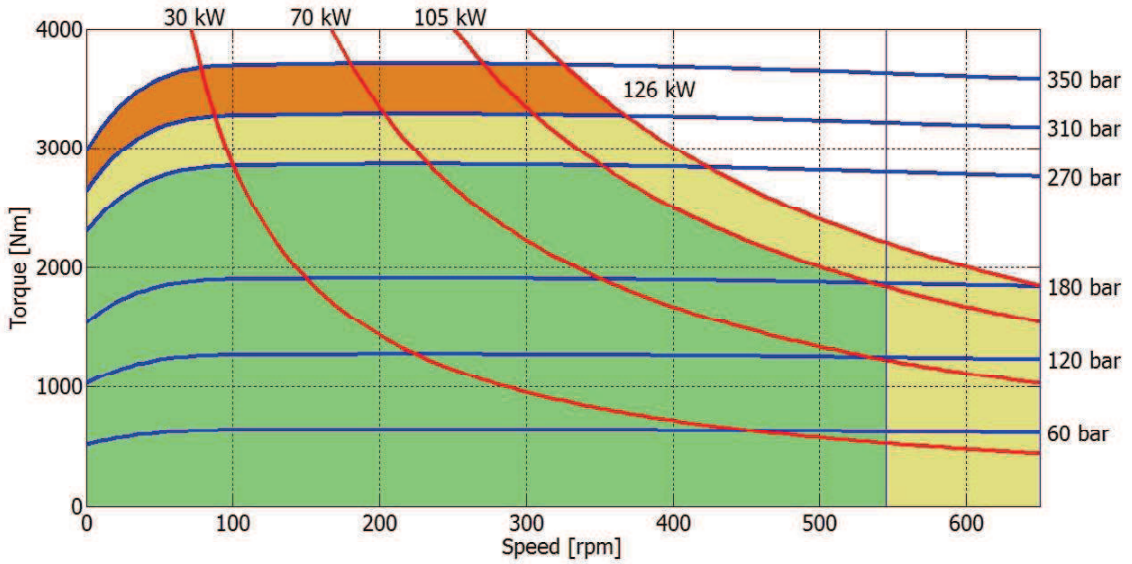
EXAMPLES:

IAC 1400 H5 A1 D90 C3-12 SV 1393-820
IAC 1400/C H5 A0 D75 TB XY 1499-328
IAC 1400/MRH H5 A1 D90 C3-SV HPS 1600-980

1536 cc - WITHOUT FLUSHING



737 cc - WITHOUT FLUSHING



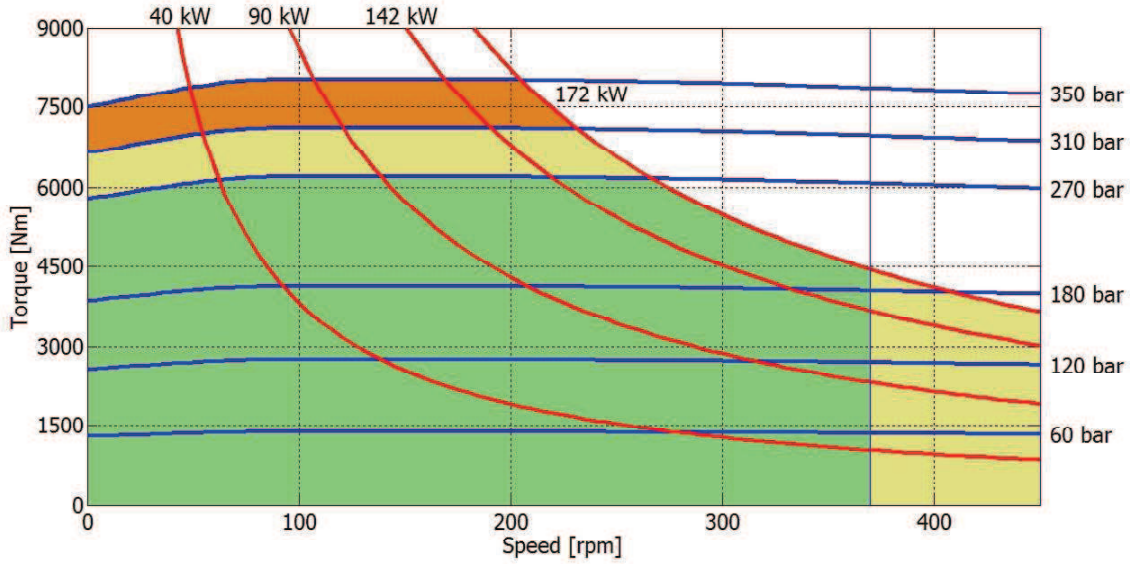
Continuous operation

Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period.

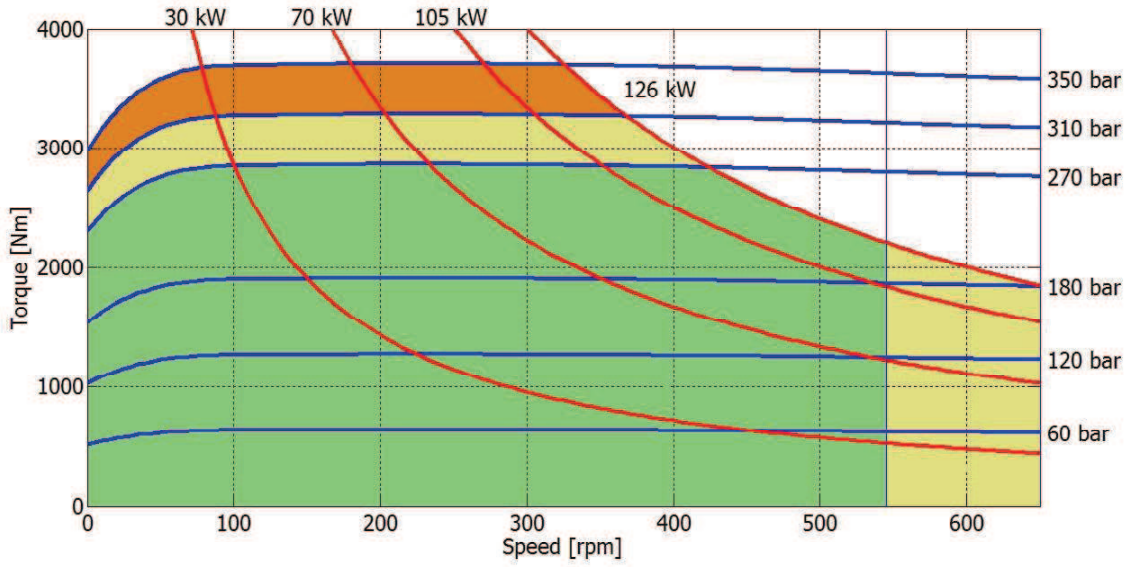
Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes).

The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt). In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

1536 cc - WITH FLUSHING



737 cc - WITH FLUSHING



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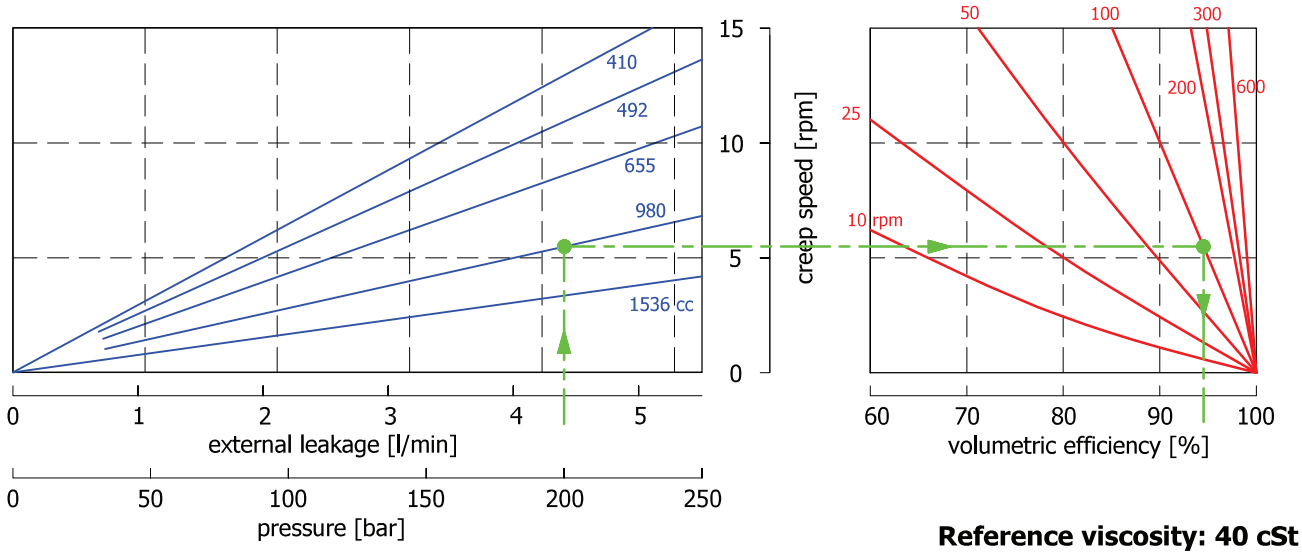
The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt). In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be optimized or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

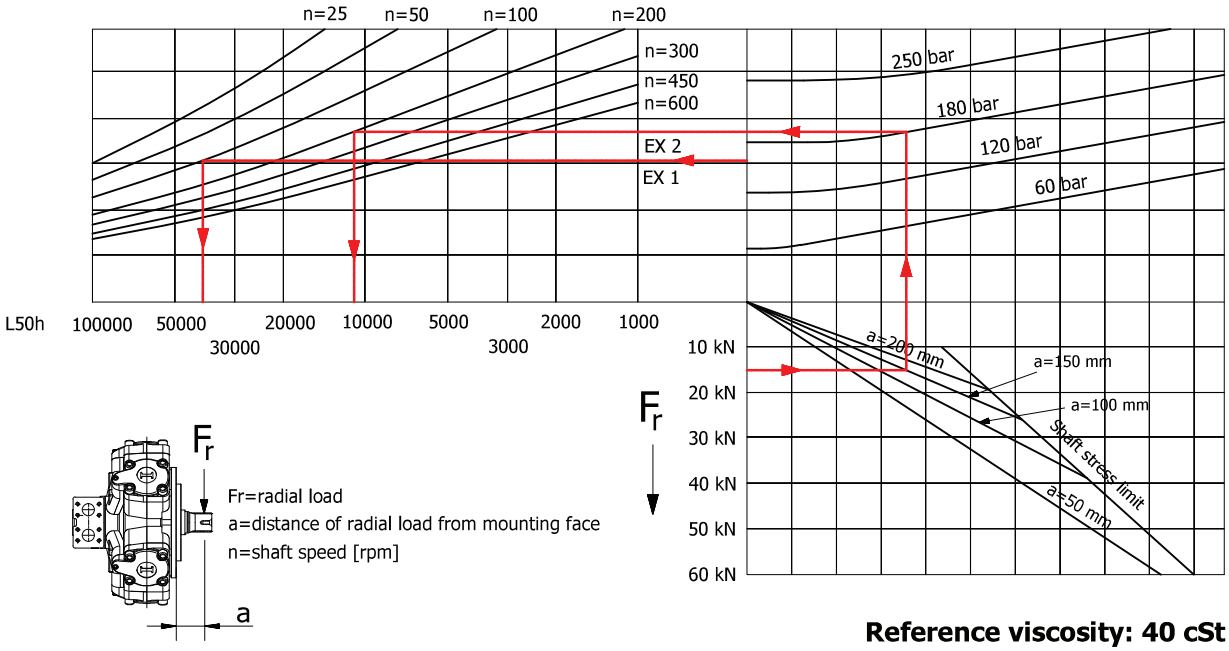
CREEP SPEED - VOLUMETRIC EFFICIENCY



Reference viscosity: 40 cSt

Example:
We suppose (980 cc): p=200 [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 5,5 [rpm].
If we suppose (980 cc): p=200 [bar] and n=100 [rpm] we obtain a volumetric efficiency of 94,5%;

BEARING LIFE



Reference viscosity: 40 cSt

Example:
We suppose (EX1): p=180 [bar], n=100 [rpm]; we obtain an average lifetime of 40000 [h].
If we suppose (EX2): F_r=15 [kN], a=150 [mm], n=200 [rpm] and p=180 [bar] we obtain an average lifetime of 11000 [h].