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**ITALGROUP SRL**  
**IAC SERIES - IAC H55**  
**GENERAL CATALOGUE**

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### IAC 2200 H55

Displacement (*)	[cc]	2200	2049	1970	1800	1640	1470	1310	1150	980	820
Th. specific torque	[Nm/bar]	35	32,6	31,3	28,6	26,1	23,4	20,9	18,3	15,6	13,1
Continuous speed	[rpm]	280	305	320	350	380	410	440	470	610	620
Peak speed	[rpm]	320	340	360	400	430	470	500	540	700	700
Minimum speed	[rpm]	1	1	1	1	1	1	1	1	1	2
Mechanical efficiency	[%]	92,2	92,2	92,2	92,2	91	90	88	86,5	82,2	81,8
Starting efficiency	[%]	81	80,6	79,6	77,5	74,6	71,5	67,5	62,2	55,3	45,8
Continuous power (***)	[kW]	140	140	135	125	116	108	100	90	83	75
Cont. power with flushing	[kW]	170	170	165	155	145	135	127	110	105	90
Continuous pressure	[bar]	270	270	270	270	270	270	270	270	270	250
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]	10	10	10	10	10	10	10	10	10	10
Dry weight	[kg]	210	210	210	210	210	210	210	210	210	210

Displacement (*)	[cc]	655	490	330	160	82	0
Th. specific torque	[Nm/bar]	10,4	7,8	5,3	2,5	1,3	0
Continuous speed	[rpm]	620	640	640	640	1000	1000
Peak speed	[rpm]	720	720	800	800	1200	1500
Minimum speed	[rpm]	2	2	3	5	-	-
Mechanical efficiency	[%]	78,2	76	73	26	0	0
Starting efficiency	[%]	31,5	0	0	0	0	0
Continuous power (***)	[kW]	65	50	25	5	0	0
Cont. power with flushing	[kW]	80	65	40	10	0	0
Continuous pressure	[bar]	250	250	250	250	17(**)	17(**)
Intermittent pressure	[bar]	310	310	310	310	17(**)	17(**)
Peak pressure	[bar]	350	350	350	350	17(**)	17(**)
Flushing flow	[l/min]	10	10	10	12	15	15
Dry weight	[kg]	210	210	210	210	210	210

(\*) 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 150 kW and starting efficiency is 86%, estimated required power is  $150/0.86 = 174,4$  kW.

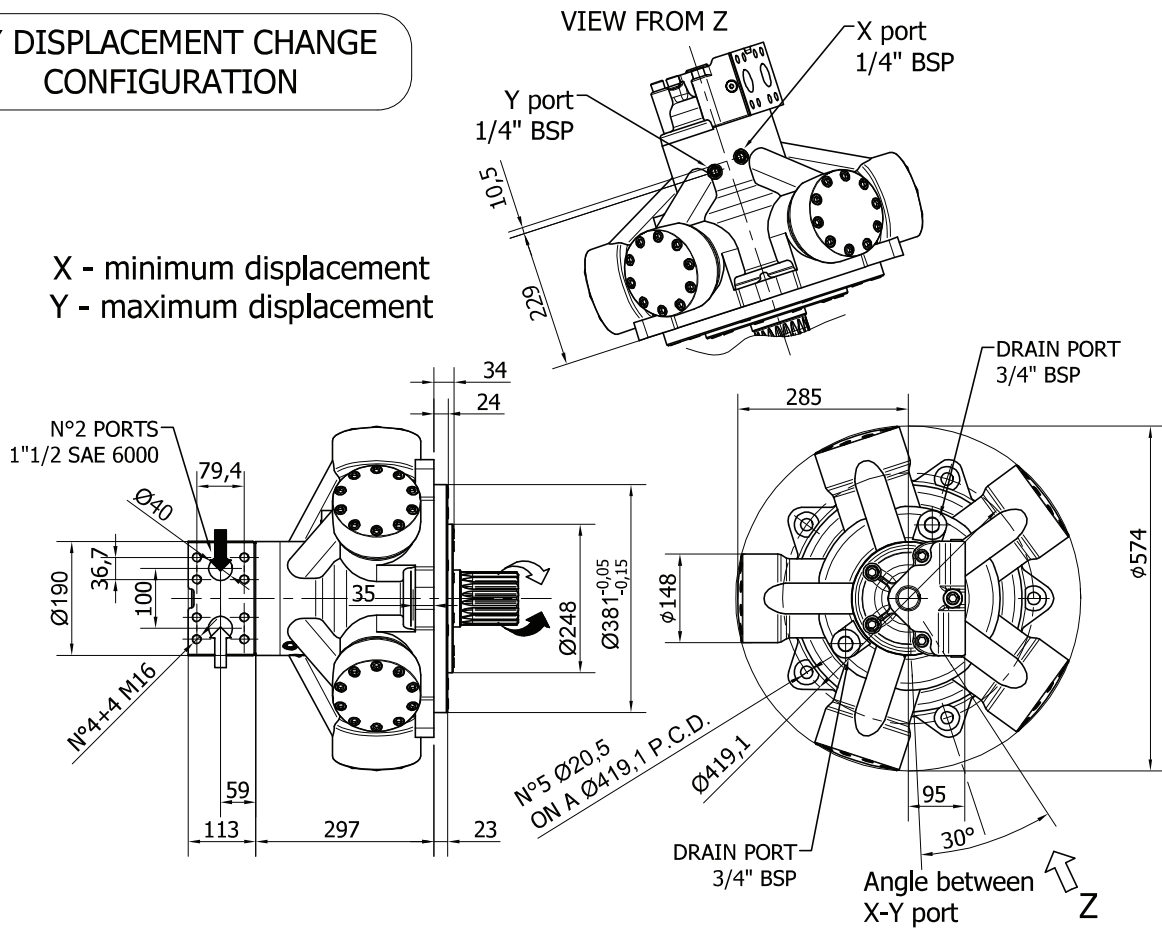
Hydrostatic pressure test: 420 bar.

Temperature range: -30 / 70 °C.

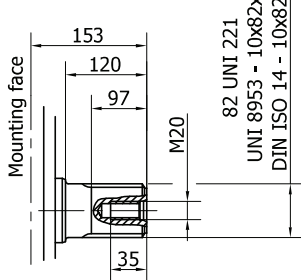
# IAC 2200 H55 - INSTALLATION DRAWING

## XY DISPLACEMENT CHANGE CONFIGURATION

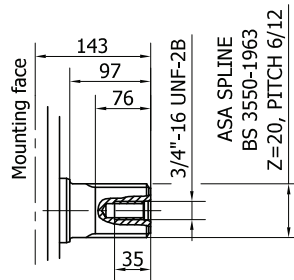
X - minimum displacement  
Y - maximum displacement



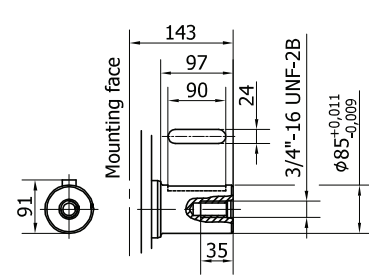
### SHAFT TYPE: A0



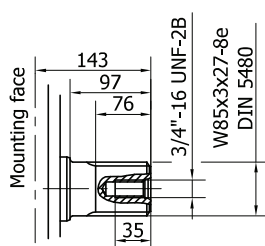
### SHAFT TYPE: A1



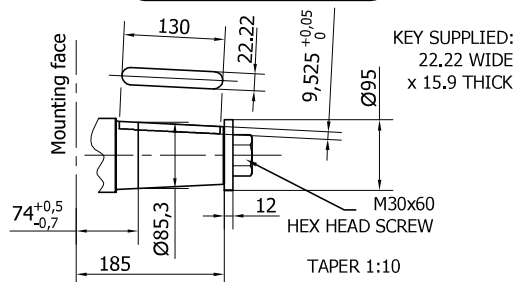
### SHAFT TYPE: A2



### SHAFT TYPE: A11



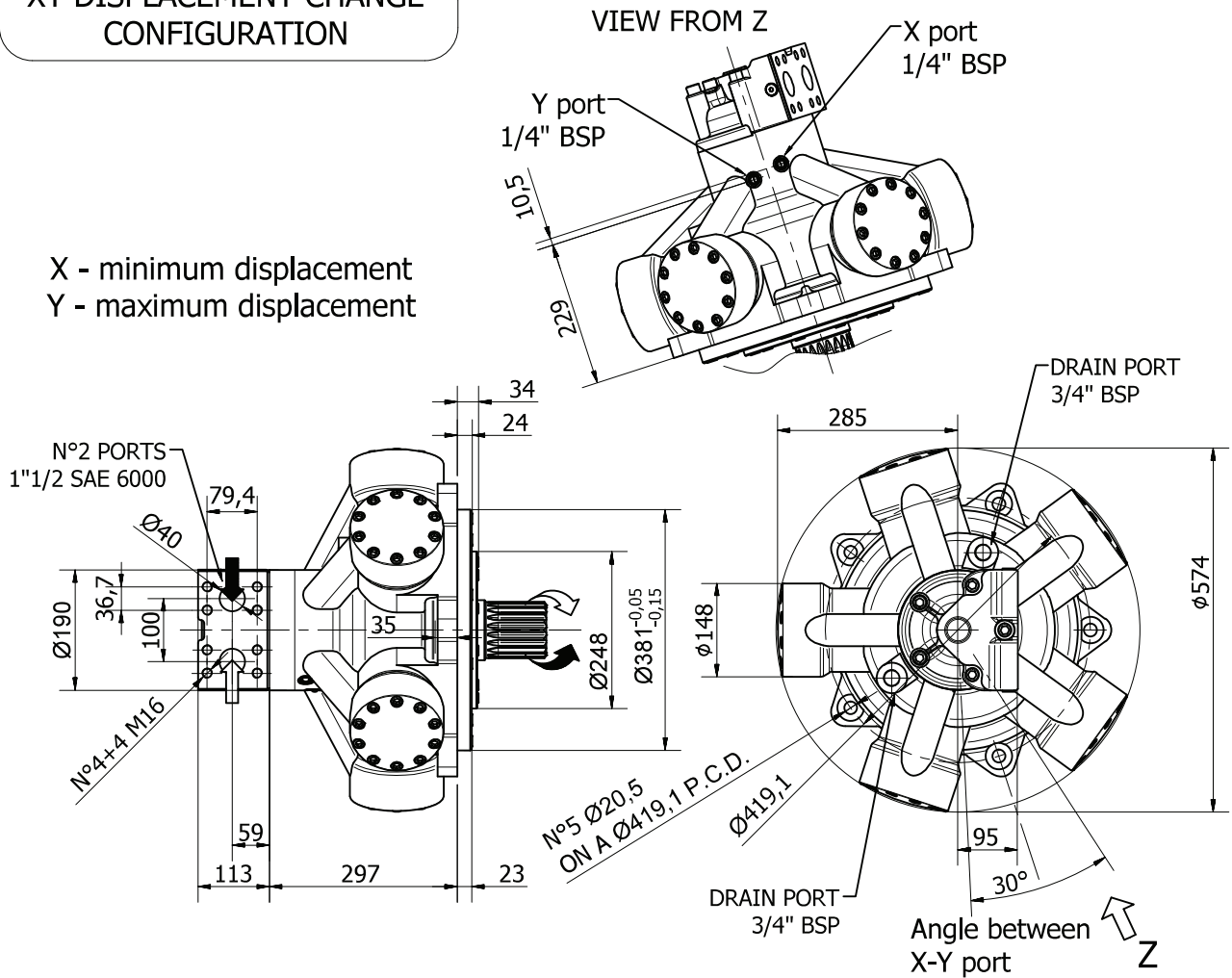
### SHAFT TYPE: A4



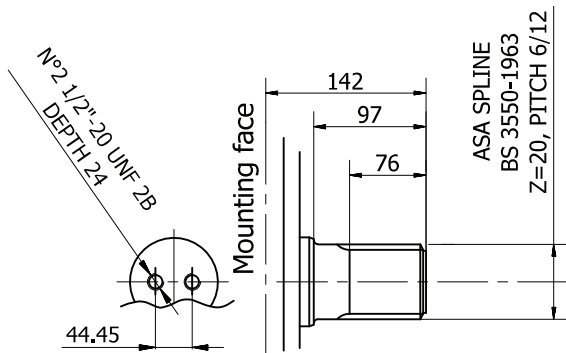
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**XY DISPLACEMENT CHANGE CONFIGURATION**

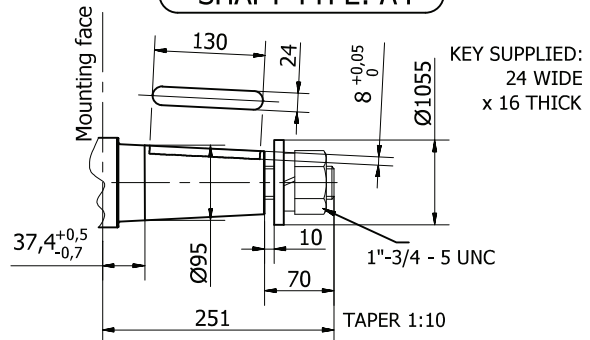
X - minimum displacement  
Y - maximum displacement



**SHAFT TYPE: A12**



**SHAFT TYPE: A4**

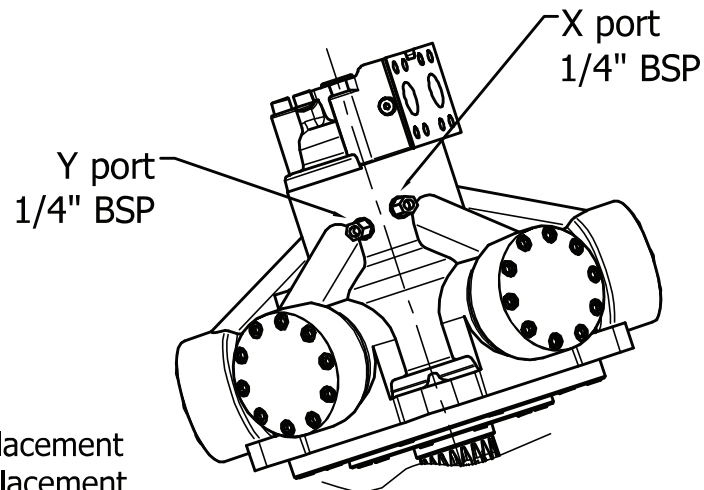


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# IAC 2200 H55 - NIP OPTION

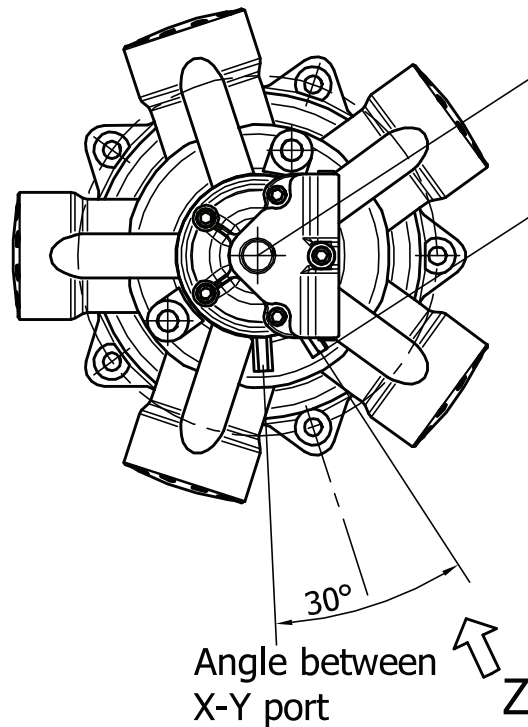
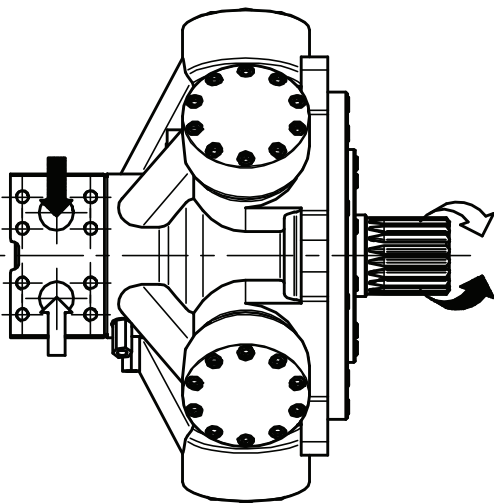
## XY DISPLACEMENT CHANGE CONFIGURATION

VIEW FROM Z

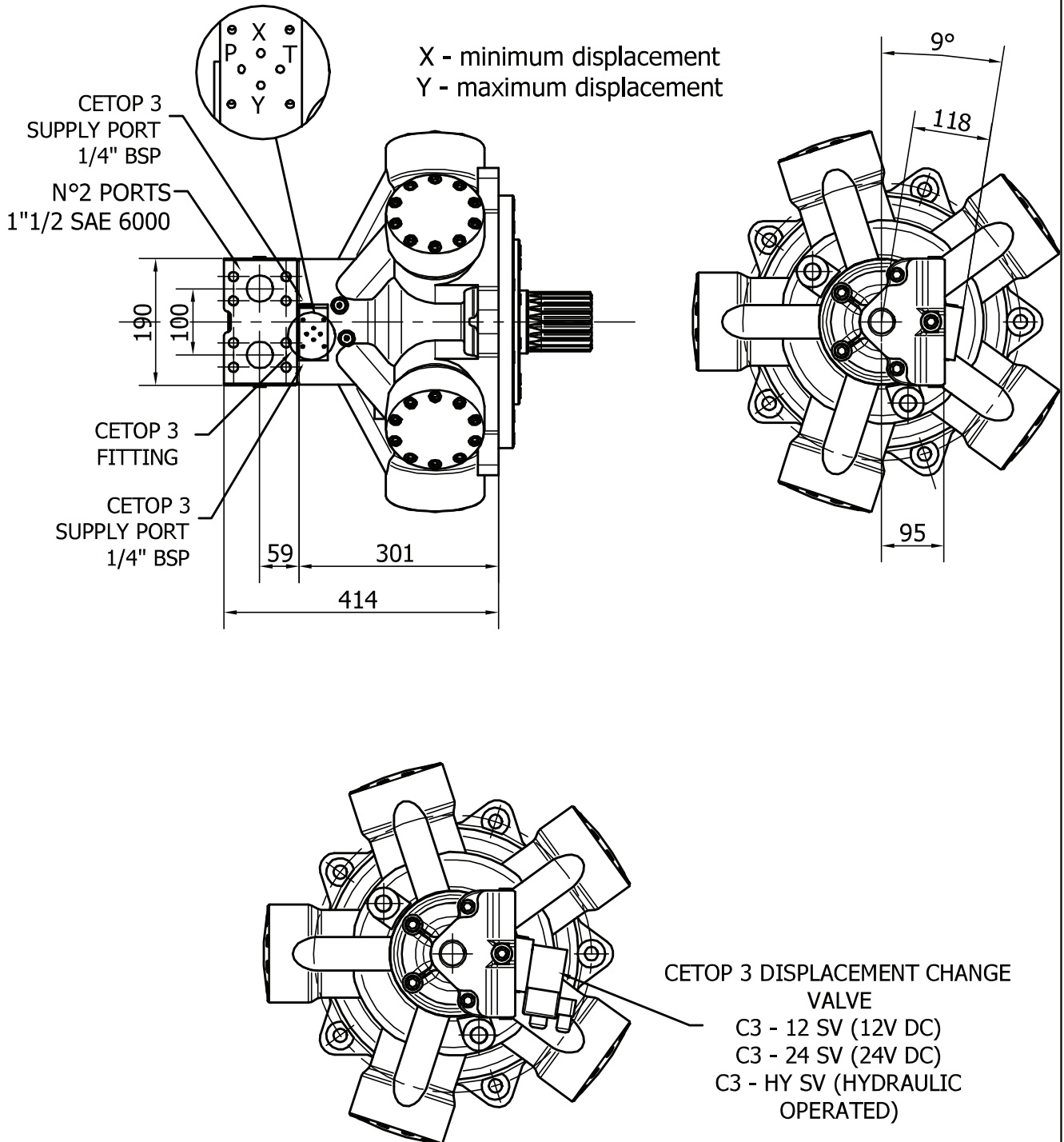


X - minimum displacement  
Y - maximum displacement

93 (Standard version)  
133 (NIP version)

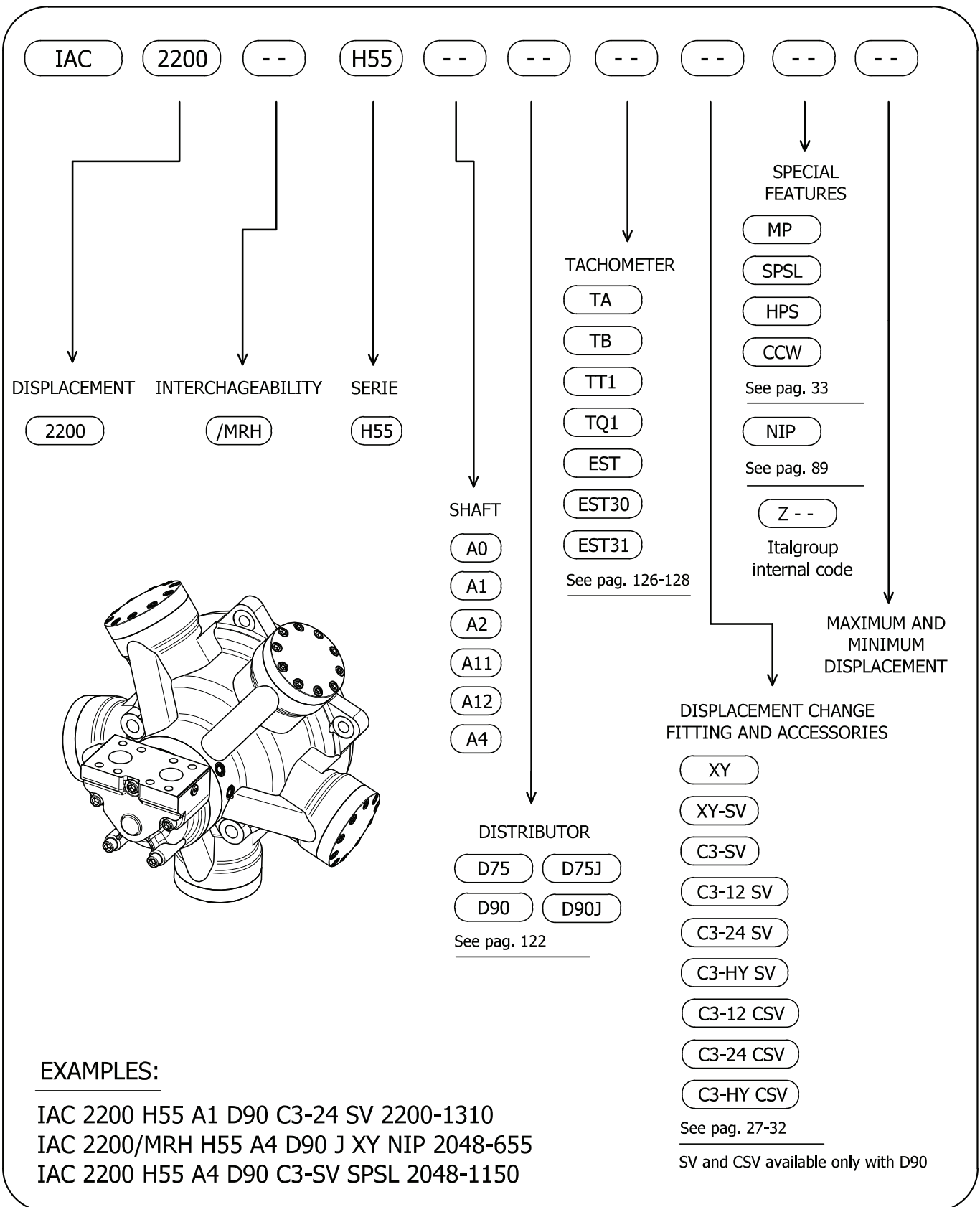


**CETOP 3 DISPLACEMENT  
 CHANGE CONFIGURATION**



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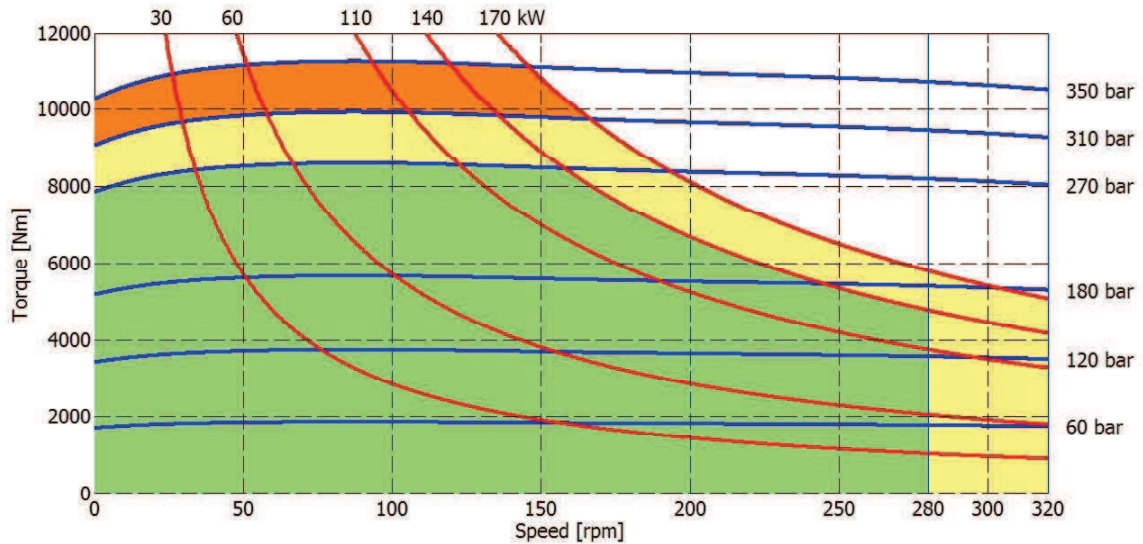
# IAC 2200 H55 - ORDERING CODE



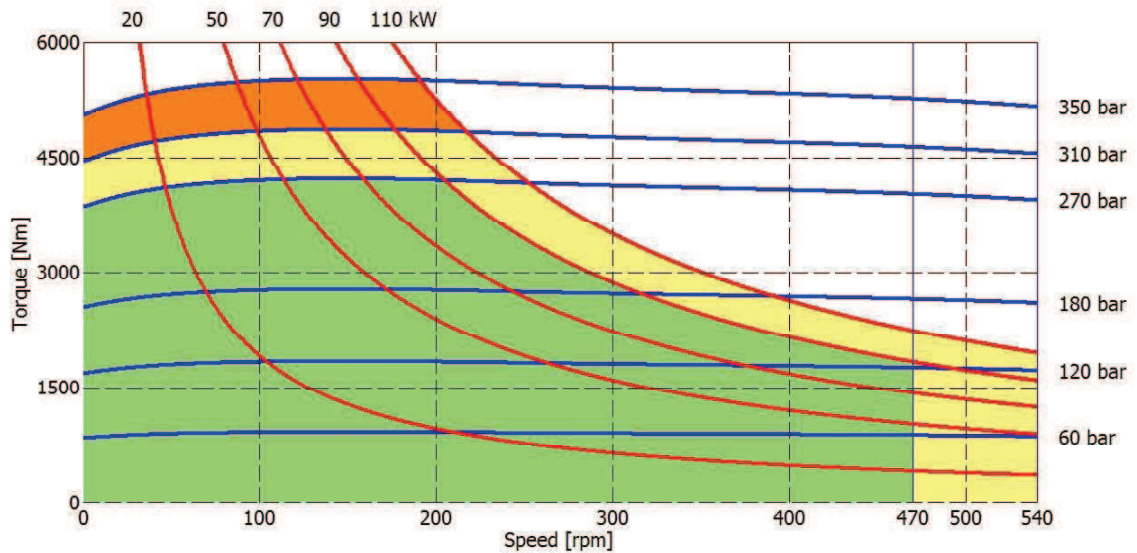
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**2200 cc - WITHOUT FLUSHING**



**1150 cc - WITHOUT FLUSHING**



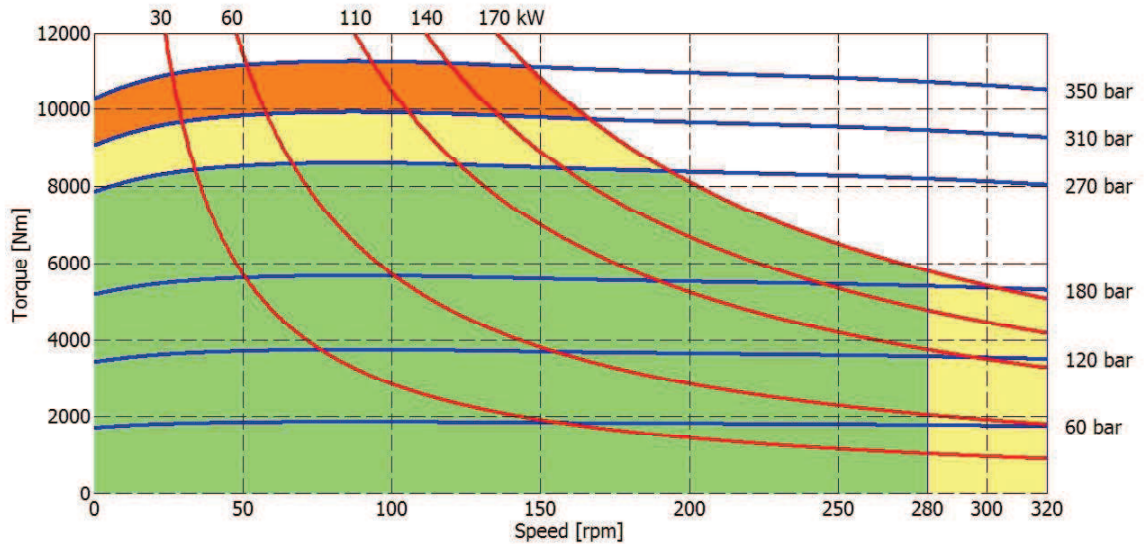
- Continuous operation
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period.
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes).

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.

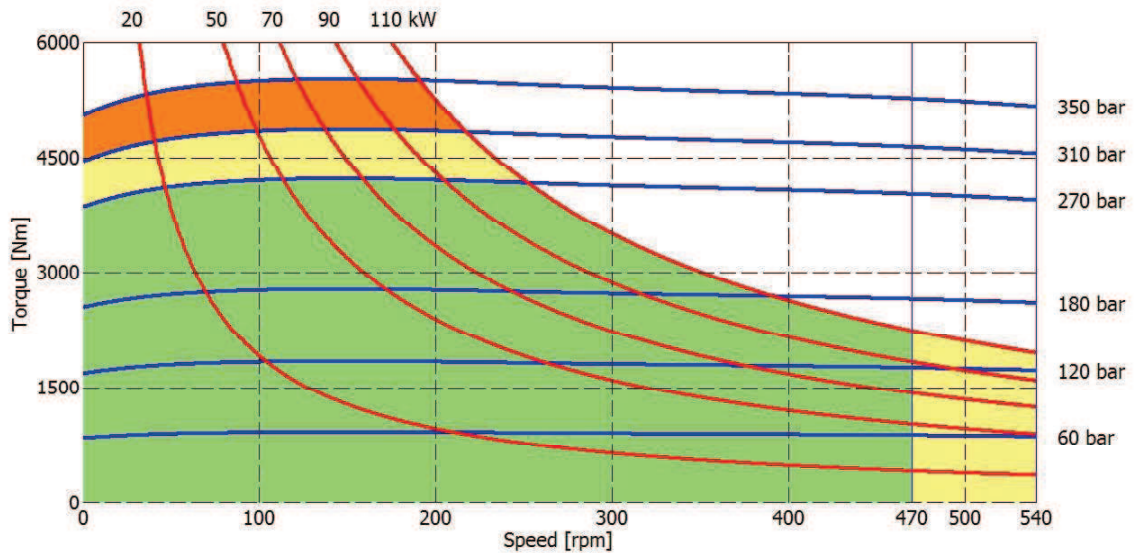
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## 2200 cc - WITH FLUSHING



## 1150 cc - WITH FLUSHING

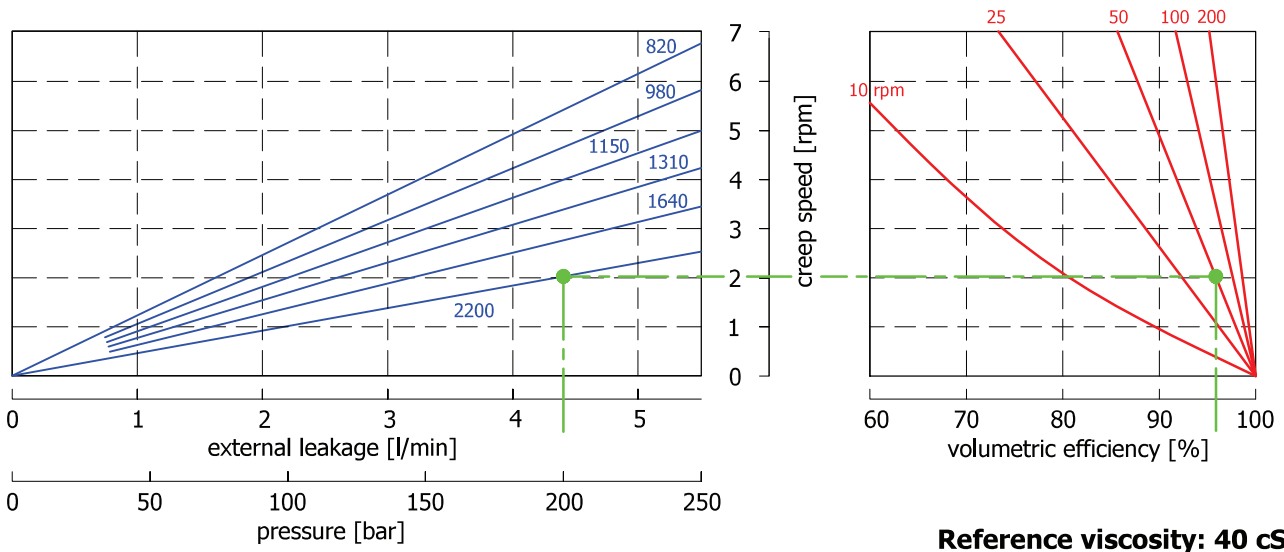


-  Continuous operation
-  Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period.
-  Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes).

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 optimized or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**CREEP SPEED - VOLUMETRIC EFFICIENCY**

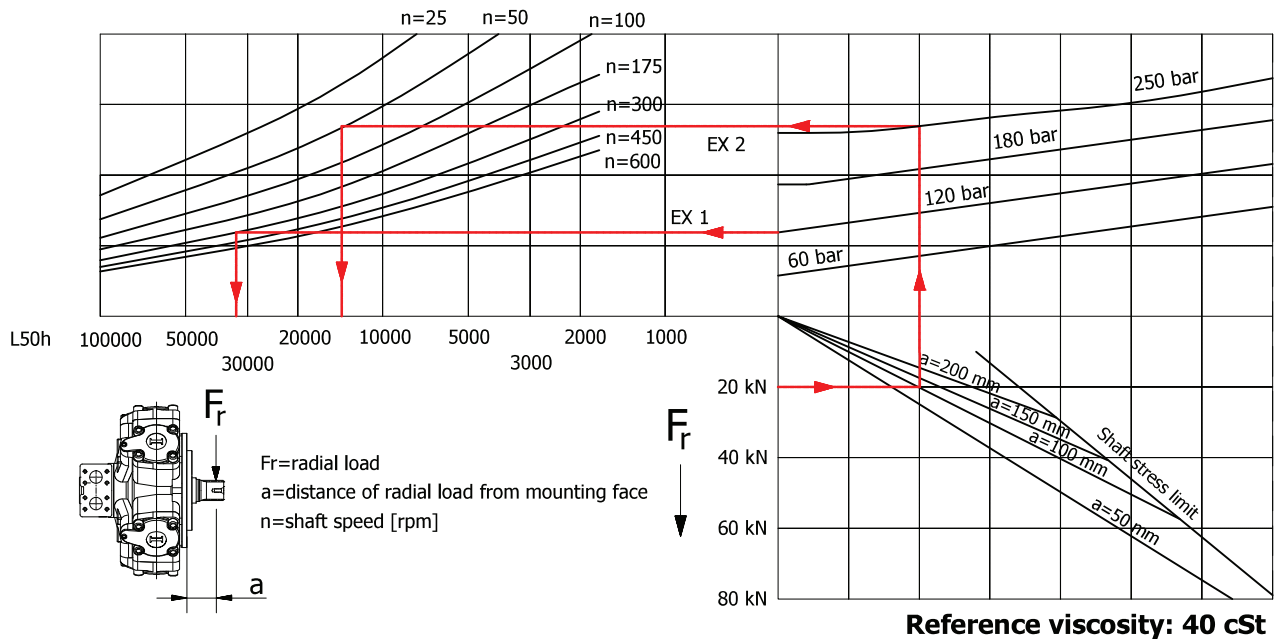


*Example:*

We suppose (2200 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 2 [rpm].

If we suppose (2200 cc):  $p=200$  [bar] and  $n=50$  [rpm] we obtain a volumetric efficiency of 96%;

**BEARING LIFE**



*Example:*

We suppose (EX1):  $p=120$  [bar],  $n=300$  [rpm]; we obtain an average lifetime of 34000 [h].

If we suppose (EX2):  $F_r=20$  [kN],  $a=100$  [mm],  $n=50$  [rpm] and  $p=250$  [bar] we obtain an average lifetime of 12000 [h].

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