



TRANSFER OIL

Pure Fluid Attitude



HPSteel

FEATURES

Gomax[®] · Quadra System

The new Quadra HPSteel range

Flexible hoses for CO₂ (R744) subcritical and transcritical refrigeration units, engineered for temperatures up to +150 °C (+302 °F).

[Explore the range](#)

0 bar Working Pressure

0 bar Burst Pressure

45 / +150 °C range

5:1 safety factor

[Overview](#) [Benefits](#) [Range](#) [Fittings](#) [Performance](#)

Built for demanding CO₂ units

Right at the heart of the unit.

Gomax[®] flexible hoses are engineered to replace rigid copper tubing in industrial air conditioning and refrigeration systems. They help absorb vibration, simplify routing and enable quick installation with no welding or brazing.

Quadra HPSteel extends this approach to the demanding pressure and temperature conditions of CO₂ (R744) systems, enabling flexible connections across a wider range of applications:

- Pressure gauges & switches
- Oil return lines
- Suction & discharge lines
- Subcritical & transcritical units

Quadra HPSteel can be installed directly on the compressor discharge and suction lines, becoming an integral part of the refrigeration circuit. By replacing rigid copper tubing with Quadra HPSteel, the compressor can be virtually isolated from the rest of the system, **avoiding the transmission of vibrations to other components.**

FLEXIBLE

Features + benefits

Engineered for performance.

Robust construction

Designed to resist kinking and withstand mechanical stress.

150°

High-temperature performance

Inner tube and cover made of a special thermoplastic polymer, designed for continuous operation from 45 °C to +150 °C.

Steel reinforcement

DN6 to DN12 feature high-tensile steel braid for enhanced mechanical strength.
Zn

Corrosion-resistant fittings

Carbon-steel fittings with zinc-nickel plating for enhanced corrosion resistance.

Material compatibility

Materials tested for compatibility with R744 and typical POE and PAG oils.

Tested quality

The full range has been tested under demanding CO₂ operating conditions to verify long-term performance and reliability.
Quadra HPSteel range

One range. Six sizes.

Select a nominal diameter to explore its construction and technical data.

Part no.	DN	Inches	Dash	ID (mm)	OD (mm)	WP (bar)	BP (bar)	ID (inch)	OD (inch)	WP (psi)	BP (psi)	SF	BR (mm)	BR (inch)	Weight (gr/m)	Weight (lb/ft)	Ferrule standard	Ferrule A316L
089A	DN2	5/64	-	2.0	5.0	630	1900	0.079	0.197	9100	27300	3:1	20	0.79	19	0.013	SAYIC1	
089B	DN3	1/8	-2	3.0	6.0	630	1900	0.118	0.236	9100	27300	3:1	30	1.18	24	0.016	SAYIG1	
202B	DN3	1/8	-2	3.5	7.2	1050	2625	0.138	0.283	15000	37500	2.5:1	60	2.36	92	0.062	HAAIG1	
0460	DN4	1/8	-2	4.0	9.1	700	2800	0.157	0.358	10000	40000	4:1	25	0.98	60	0.040	SAFI01	SAF801
0520	DN4	1/8	-2	4.0	8.3	210	840	0.157	0.327	3000	12000	4:1	25	0.98	45	0.030	SAB101	SAB801
0540	DN4	1/8	-2	4.0	8.0	420	1680	0.157	0.315	6000	24000	4:1	25	0.98	44	0.030	SAB101	SAB801
0630	DN4	1/8	-2	4.0	8.3	210	840	0.157	0.327	3000	12000	4:1	25	0.98	97	0.065	SAB101	SAB801
0660	DN4	1/8	-2	4.0	8.3	210	840	0.157	0.327	3000	12000	4:1	25	0.98	52	0.035	SAB101	SAB801
0750	DN4	1/8	-2	4.0	8.0	420	1680	0.157	0.315	6000	24000	4:1	25	0.98	45	0.030	SAB101	SAB801
089C	DN4	5/32	-	4.0	8.0	630	1900	0.157	0.315	9100	27300	3:1	40	1.57	45	0.030	SAYIM1	
0920	DN4	1/8	-2	4.0	7.1	175	700	0.157	0.280	2500	10000	4:1	20	0.79	31	0.021	SAB101	SAB801
0950	DN4	1/8	-2	4.0	8.3	210	840	0.157	0.327	3000	12000	4:1	25	0.98	48	0.032	SAB101	SAB801
130A	DN4	5/32	-	4.0	9.7	400	1000	0.157	0.382	5800	14500	2.5:1	35	1.38	68	0.046	SAA101	SAA801
130C	DN4	5/32	-	4.0	8.3	400	1000	0.157	0.327	5800	14500	2.5:1	25	0.98	52	0.035	SAB101	SAB801
1660	DN4	1/8	-2	4.0	8.3	210	840	0.157	0.327	3000	12000	4:1	25	0.98	52	0.035	SAB101	SAB801
1750	DN4	1/8	-2	4.0	8.0	420	1680	0.157	0.315	6000	24000	4:1	25	0.98	95	0.064	SAB101	SAB801
2020	DN4	5/32	-	4.1	8.2	1050	2625	0.161	0.323	15000	37500	2.5:1	70	2.76	105	0.070	HAA101	HAA801
2030	DN4	5/32	-	4.0	10.3	1400	3500	0.157	0.406	20000	50000	2.5:1	60	2.36	181	0.121	HAB101	HAB801
2040	DN4	5/32	-	4.0	9.9	2050	5125	0.157	0.390	30000	75000	2.5:1	120	4.72	206	0.139	HAC101	HAC801
2060	DN4	5/32	-	4.0	11.8	2800	7000	0.157	0.465	40000	100000	2.5:1	170	6.69	332	0.223	HAE101	
2120	DN4	5/32	-	3.9	8.0	1400	3500	0.154	0.315	20000	50000	2.5:1	75	2.95	109	0.073	HAJ101	HAJ801
2140	DN4	5/32	-	4.0	9.9	2200	5500	0.157	0.390	31900	79750	2.5:1	120	4.72	206	0.139	HAC101	HAC801
0201	DN5	3/16	-3	5.0	9.1	210	840	0.197	0.358	3000	12000	4:1	25	0.98	50	0.034	SAB111	SAB811
0211	DN5	3/16	-3	5.0	9.1	210	840	0.197	0.358	3000	12000	4:1	25	0.98	100	0.067	SAB111	SAB811
0221	DN5	3/16	-3	5.0	9.1	210	840	0.197	0.358	3000	12000	4:1	25	0.98	53	0.036	SAB111	SAB811
0301	DN5	3/16	-3	4.9	7.8	205	820	0.193	0.307	2900	11600	4:1	35	1.38	83	0.056	SAG111	
0351	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	60	0.040	SAB111	SAB811
0361	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	120	0.081	SAB111	SAB811
0371	DN5	3/16	-3	5	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	61	0.041	SAB111	SAB811
0461	DN5	3/16	-3	5.0	11.0	700	2800	0.197	0.433	10000	40000	4:1	30	1.18	88	0.059	SAFI11	SAF811
0501	DN5	3/16	-3	5.0	9.7	300	1200	0.197	0.382	4300	17200	4:1	30	1.18	126	0.085	SAB111	SAB811
0521	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	59	0.040	SAB111	SAB811
0531	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	63	0.042	SAB111	SAB811
0541	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	51	0.034	SAB111	SAB811
0551	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	52	0.035	SAB111	SAB811
0561	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	128	0.086	SAB111	SAB811
0581	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	126	0.085	SAB111	SAB811
0601	DN5	3/16	-3	5.0	9.6	350	1400	0.197	0.378	5000	20000	4:1	30	1.18	59	0.040	SAFI11	SAF811
0621	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	59	0.040	SAB111	SAB811
0631	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	125	0.084	SAB111	SAB811
0661	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	60	0.040	SAB111	SAB811
0751	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	52	0.035	SAB111	SAB811
0761	DN5	3/16	-3	5.0	9.6	350	1400	0.197	0.378	5000	20000	4:1	30	1.18	65	0.044	SAB111	SAB811
0831	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	123	0.083	SAB111	SAB811
0831BP	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	123	0.083	SAB111	SAB811
0841	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	121	0.081	SAB111	SAB811
0871	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	126	0.085	SAB111	SAB811
0881	DN5	3/16	-3	5.0	9.7	360	1440	0.197	0.382	5200	20800	4:1	30	1.18	261	0.175	SAB111	SAB811
0921	DN5	3/16	-3	5.0	8.5	150	600	0.197	0.335	2100	8400	4:1	25	0.98	43	0.029	SAI111	SAI811

0951	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	63	0.042	SAB111	SAB811
0971	DN5	3/16	-3	5.0	10.4	210	840	0.197	0.409	3000	12000	4:1	25	0.98	76	0.051	SAB111	SAB811
0981	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	58	0.039	SAB111	SAB811
1171	DN5	3/16	-3	5.0	8.5	175	440	0.197	0.335	2500	6250	2.5:1	25	0.98	43	0.029	SA1111	SA1811
1191	DN5	3/16	-3	5.0	10.4	280	840	0.197	0.409	4000	12000	3:1	25	0.98	74	0.050	SAB111	SAB811
1201	DN5	3/16	-3	5.0	9.6	420	1680	0.197	0.378	6000	24000	4:1	30	1.18	61	0.041	SAB111	SAB811
1251	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	60	0.040	SAB111	SAB811
1261	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	52	0.035	SAB111	SAB811
1271	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	49	0.033	SAB111	SAB811
1351	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	125	0.084	SAB111	SAB811
1421	DN5	3/16	-3	5.0	9.1	210	840	0.197	0.358	3000	12000	4:1	25	0.98	50	0.034	SAB111	SAB811
1431	DN5	3/16	-3	5.0	9.1	210	840	0.197	0.358	3000	12000	4:1	25	0.98	100	0.067	SAB111	SAB811
1471	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	60	0.040	SAB111	SAB811
1481	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	120	0.081	SAB111	SAB811
1531	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	60	0.040	SAB111	SAB811
1541	DN5	3/16	-3	5.0	9.7	350	1400	0.197	0.382	5000	20000	4:1	30	1.18	128	0.086	SAB111	SAB811
1551	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	60	0.040	SAB111	SAB811
1561	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	60	0.040	SAB111	SAB811
1571	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	57	0.038	SAB111	SAB811
1581	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	49	0.033	SAB111	SAB811
1631	DN5	3/16	-3	5.0	9.6	250	1000	0.197	0.378	3600	14400	4:1	25	0.98	125	0.084	SAB111	SAB811
1661	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	60	0.040	SAB111	SAB811
1751	DN5	3/16	-3	5.0	8.9	350	1400	0.197	0.350	5000	20000	4:1	30	1.18	109	0.073	SAB111	SAB811
1841	DN5	3/16	-3	5.0	9.7	30	150	0.197	0.382	400	2000	5:1	25	0.98	60	0.040	SAB111	SAB811
1951	DN5	3/16	-3	5.0	9.6	210	840	0.197	0.378	3000	12000	4:1	25	0.98	60	0.040	SAB111	SAB811
2021	DN5	3/16	-3	5.2	9.9	1050	2625	0.205	0.390	15000	37500	2.5:1	90	3.54	152	0.102	HAA111	HAA811
2041	DN5	3/16	-3	5.1	11.8	1800	4500	0.201	0.465	26100	65250	2.5:1	140	5.51	279	0.188	HAC111	HAC811
2061	DN5	3/16	-3	4.8	13.2	2500	6250	0.189	0.520	36200	90500	2.5:1	190	7.48	450	0.302	HAF111	
2081	DN5	3/16	-3	4.7	16.0	3800	7600	0.185	0.630	55000	123026	2:1	230	9.06	783	0.526	HAI111	
2121	DN5	3/16	-3	4.8	9.3	1400	3500	0.189	0.366	2000 0	50000	2.5:1	95	3.74	140	0.094	HAI111	
2161	DN5	3/16	-3	4.8	13.2	2800	7000	0.189	0.520	4000 0	10000 0	2.5:1	210	8.27	450	0.302	HAF111	
2241	DN5	3/16	-3	5.1	11.6	1500	4500	0.201	0.457	21700	65100	3:1	250	9.84	281	0.189	HAC111	HAC811
2261	DN5	3/16	-3	4.8	13.2	3050	7000	0.189	0.520	4420 0	101600	2.3:1	210	8.27	450	0.302	HAF111	
2341	DN5	3/16	-3	5.1	11.6	1100	4400	0.201	0.457	15900	63600	4:1	250	9.84	281	0.189		HAL811
2441	DN5	3/16	-3	4.9	11.6	1800	4500	0.193	0.457	26100	62200	2.5:1	130	5.12	266	0.179	HAC111	HAC811
0202	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	90	0.060	SAB121	SAB821
0212	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	180	0.121	SAB121	SAB821
0222	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	88	0.059	SAB121	SAB821
0232	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	90	0.060	SAB121	SAB821
0302	DN6	1/4	-4	6.5	9.2	180	720	0.256	0.362	2600	10400	4:1	45	1.77	89	0.060	SAG121	
0352	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	110	0.074	SAB121	SAB821
0362	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	220	0.148	SAB121	SAB821
0372	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	119	0.080	SAB121	SAB821
0392	DN6	1/4	-4	6.4	12.8	700	1400	0.252	0.504	10000	20000	2:1	40	1.57	250	0.168	SAC121	SAC821
0402	DN6	1/4	-4	6.6	12.8	700	2800	0.260	0.504	10000	40000	4:1	35	1.38	194	0.130	SAF121	SAF821
0412	DN6	1/4	-4	6.6	12.8	700	2800	0.260	0.504	10000	40000	4:1	35	1.38	194	0.130	SAF121	SAF821
0462	DN6	1/4	-4	6.6	14.2	700	2800	0.260	0.559	10000	40000	4:1	35	1.38	140	0.094	SAF121	SAF821
0482	DN6	1/4	-4	6.6	12.8	700	2800	0.260	0.504	10000	40000	4:1	35	1.38	177	0.119	SAF121	SAF821
0502	DN6	1/4	-4	6.5	11.7	275	1100	0.256	0.461	3900	15600	4:1	40	1.57	164	0.110	SAB121	SAB821
0522	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	97	0.065	SAB121	SAB821
0532	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	97	0.065	SAB121	SAB821

0542	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	82	0.055	SAB121	SAB821
0552	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	84	0.056	SAB121	SAB821
0562	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	164	0.110	SAB121	SAB821
0582	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	164	0.110	SAB121	SAB821
0602	DN6	1/4	-4	6.5	12.1	350	1400	0.256	0.476	5000	20000	4:1	50	1.97	89	0.060	SAF121	SAF821
0622	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	96	0.065	SAB121	SAB821
0632	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	201	0.135	SAB121	SAB821
0662	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	98	0.066	SAB121	SAB821
0752	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	84	0.056	SAB121	SAB821
0762	DN6	1/4	-4	6.5	12.1	350	1400	0.256	0.476	5000	20000	4:1	50	1.97	98	0.066	SAB121	SAB821
07B2	DN6	1/4	-4	6.5	11.9	280	1120	0.256	0.469	4000	16000	4:1	40	1.57	161	0.108	SAC121	SAC821
0802	DN6	1/4	-4	6.6	14.6	800	3200	0.260	0.575	11500	46000	4:1	35	1.38	241	0.162	SAF121	SAF821
0812	DN6	1/4	-4	6.4	12.8	425	1700	0.252	0.504	6100	24400	4:1	40	1.57	242	0.163	SAC121	SAC821
0822	DN6	1/4	-4	6.4	12.8	400	1600	0.252	0.504	5800	23200	4:1	40	1.57	501	0.337	SAC121	SAC821
0832	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	155	0.104	SAB121	SAB821
0832BP	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	155	0.104	SAB121	SAB821
0842	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	156	0.105	SAB121	SAB821
0852	DN6	1/4	-4	6.4	12.8	400	1600	0.252	0.504	5800	23200	4:1	40	1.57	248	0.167	SAC121	SAC821
0872	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	164	0.110	SAB121	SAB821
0882	DN6	1/4	-4	6.5	11.7	310	1240	0.256	0.461	4500	18000	4:1	40	1.57	333	0.224	SAB121	SAB821
0922	DN6	1/4	-4	6.5	10.6	140	560	0.256	0.417	2000	8000	4:1	40	1.57	61	0.041	SA1121	SA1821
0952	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	97	0.065	SAB121	SAB821
0972	DN6	1/4	-4	6.5	12.9	210	840	0.256	0.508	3000	12000	4:1	35	1.38	116	0.078	SAB121	SAB821
0982	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	90	0.060	SAB121	SAB821
1062	DN6	1/4	-4	6.3	11.2	20	80	0.248	0.441	290	1160	4:1	30	1.18	70	0.047		
1072	DN6	1/4	-4	6.3	11.2	20	80	0.248	0.441	290	1160	4:1	30	1.18	75	0.050		
1082	DN6	1/4	-4	6.5	11.8	350	1400	0.256	0.465	5000	20000	4:1	50	1.97	155	0.104	SAC121	SAC821
1092	DN6	1/4	-4	6.5	11.8	350	1400	0.256	0.465	5000	20000	4:1	50	1.97	155	0.104	SAC121	SAC821
1172	DN6	1/4	-4	6.5	10.6	175	440	0.256	0.417	2500	6250	2.5:1	40	1.57	61	0.041	SA1121	SA1821
1192	DN6	1/4	-4	6.5	12.9	280	840	0.256	0.508	4000	12000	3:1	35	1.38	113	0.076	SAB121	SAB821
1202	DN6	1/4	-4	6.5	12.1	420	1680	0.256	0.476	6000	24000	4:1	50	1.97	98	0.066	SAB121	SAB821
1252	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	98	0.066	SAB121	SAB821
1262	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	84	0.056	SAB121	SAB821
1272	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	79	0.053	SAB121	SAB821
1332	DN6	1/4	-4	6.5	10.6	90	270	0.256	0.417	1300	3900	3:1	40	1.57	60	0.040	SA1121	SA1821
1352	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	201	0.135	SAB121	SAB821
1382	DN6	1/4	-4	6.5	12.6	420	1680	0.256	0.496	6000	24000	4:1	50	1.97	160	0.108		SAC821
140A	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	94	0.063	SAB121	SAB821
140B	DN6	1/4	-4	6.5	11.7	300	1200	0.256	0.461	4300	17200	4:1	40	1.57	157	0.105	SAB121	SAB821
140C	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	85	0.057	SAB121	SAB821
1412	DN6	1/4	-4	6.6	12.8	700	2800	0.260	0.504	10000	40000	4:1	35	1.38	367	0.247	SAF121	SAF821
1422	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	90	0.060	SAB121	SAB821
1432	DN6	1/4	-4	6.5	11.8	210	840	0.256	0.465	3000	12000	4:1	35	1.38	180	0.121	SAB121	SAB821
1472	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	110	0.074	SAB121	SAB821
1482	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	220	0.148	SAB121	SAB821
1492	DN6	1/4	-4	6.6	13.4	500	2000	0.260	0.528	7000	28000	4:1	100	3.94	197	0.132		SAH821
1502	DN6	1/4	-4	6.5	12.6	500	2000	0.256	0.496	7200	28800	4:1	40	1.57	179	0.120	SAC121	SAC821
1532	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	114	0.077	SAB121	SAB821
1542	DN6	1/4	-4	6.4	12.8	350	1400	0.252	0.504	5000	20000	4:1	40	1.57	247	0.166	SAC121	SAC821
1552	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	98	0.066	SAB121	SAB821
1562	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	114	0.077	SAB121	SAB821
1572	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	108	0.073	SAB121	SAB821

1582	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	78	0.052	SAB121	SAB821
15R2	DN6	1/4	-4	6.5	13.7	350	1400	0.256	0.539	5000	20000	4:1	50	1.97	126	0.085	SAF121	SAF821
1632	DN6	1/4	-4	6.5	13.0	250	1000	0.256	0.512	3600	14400	4:1	35	1.38	233	0.157	SAB121	SAB821
1662	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	98	0.066	SAB121	SAB821
1692	DN6	1/4	-4	6.5	14.0	700	2800	0.256	0.551	10000	40000	4:1	35	1.38	134	0.090	SAF121	SAF821
1752	DN6	1/4	-4	6.5	11.5	350	1400	0.256	0.453	5000	20000	4:1	50	1.97	173	0.116	SAB121	SAB821
1812	DN6	1/4	-4	6.4	12.8	425	1700	0.252	0.504	6100	24400	4:1	40	1.57	250	0.168	SAC121	SAC821
1842	DN6	1/4	-4	6.5	12.0	30	150	0.256	0.472	400	2000	5:1	35	1.38	89	0.060	SAB121	SAB821
1852	DN6	1/4	-4	6.6	13.6	700	2800	0.260	0.535	10000	40000	4:1	150	5.91	190	0.128		SAH821
1862	DN6	1/4	-4	6.6	13.3	1040	4160	0.260	0.524	15000	60000	4:1	150	5.91	355	0.239		SAQ821
1952	DN6	1/4	-4	6.5	12.2	210	840	0.256	0.480	3000	12000	4:1	35	1.38	98	0.066	SAB121	SAB821
2022	DN6	1/4	-4	6.4	11.5	1050	2625	0.252	0.453	15000	37500	2.5:1	110	4.33	207	0.139	HAA121	HAA821
2032	DN6	1/4	-4	6.2	13.2	1400	3500	0.244	0.520	2000 0	50000	2.5:1	90	3.54	243	0.163	HAB121	HAB821
2042	DN6	1/4	-4	6.2	13.3	2050	5125	0.244	0.524	3000 0	75000	2.5:1	170	6.69	407	0.273	HAC121	HAC821
2162	DN6	1/4	-4	6.3	16.5	2800	7000	0.248	0.650	4000 0	10000 0	2.5:1	250	9.84	763	0.513	HAF121	
A1208	DN6	1/4	-4	6.4	12.8	700	1600	0.252	0.504	10000	23000	2:1	40	1.57	245	0.165	SAC121	SAC821
0203	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	130	0.087	SAB131	SAB831
0213	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	260	0.175	SAB131	SAB831
0223	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	127	0.085	SAB131	SAB831
0303	DN8	5/16	-5	8.0	11.0	170	680	0.315	0.433	2400	9600	4:1	50	1.97	110	0.074	SAG131	
0353	DN8	5/16	-5	8.1	15.2	250	1000	0.319	0.598	3600	14400	4:1	45	1.77	140	0.094	SAB131	SAB831
0363	DN8	5/16	-5	8.1	15.2	250	1000	0.319	0.598	3600	14400	4:1	45	1.77	280	0.188	SAB131	SAB831
0373	DN8	5/16	-5	8.1	15.2	250	1000	0.319	0.598	3600	14400	4:1	45	1.77	147	0.099	SAB131	SAB831
0483	DN8	5/16	-5	8.1	16.4	700	2800	0.319	0.646	10000	40000	4:1	60	2.36	278	0.187	SAF131	SAF831
0503	DN8	5/16	-5	8.1	13.2	212	850	0.319	0.520	3000	12000	4:1	55	2.17	190	0.128	SAB131	SAB831
0523	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	128	0.086	SAB131	SAB831
0533	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	127	0.085	SAB131	SAB831
0543	DN8	5/16	-5	8.1	13.4	300	1200	0.319	0.528	4300	17200	4:1	55	2.17	102	0.069	SAB131	SAB831
0553	DN8	5/16	-5	8.1	13.4	300	1200	0.319	0.528	4300	17200	4:1	55	2.17	106	0.071	SAB131	SAB831
0563	DN8	5/16	-5	8.1	13.2	250	1000	0.319	0.520	3600	14400	4:1	55	2.17	198	0.133	SAB131	SAB831
0583	DN8	5/16	-5	8.1	13.2	250	1000	0.319	0.520	3600	14400	4:1	55	2.17	194	0.130	SAB131	SAB831
0623	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	126	0.085	SAB131	SAB831
0633	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	265	0.178	SAB131	SAB831
0663	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	130	0.087	SAB131	SAB831
0753	DN8	5/16	-5	8.1	13.4	300	1200	0.319	0.528	4300	17200	4:1	55	2.17	106	0.071	SAB131	SAB831
0763	DN8	5/16	-5	8.1	14.0	300	1200	0.319	0.551	4300	17200	4:1	55	2.17	122	0.082	SAB131	SAB831
07B3	DN8	5/16	-5	8.1	13.6	210	840	0.319	0.535	3000	12000	4:1	55	2.17	198	0.133	SAB131	SAB831
0823	DN8	5/16	-5	8.1	14.8	400	1600	0.319	0.583	5800	23200	4:1	50	1.97	629	0.423	SAC131	SAC831
0843	DN8	5/16	-5	8.1	13.2	250	1000	0.319	0.520	3600	14400	4:1	55	2.17	180	0.121	SAB131	SAB831
0853	DN8	5/16	-5	8.1	14.8	400	1600	0.319	0.583	5800	23200	4:1	50	1.97	312	0.210	SAC131	SAC831
0873	DN8	5/16	-5	8.1	13.2	250	1000	0.319	0.520	3600	14400	4:1	55	2.17	190	0.128	SAB131	SAB831
0883	DN8	5/16	-5	8.1	13.2	250	1000	0.319	0.520	3600	14400	4:1	55	2.17	401	0.269	SAB131	SAB831
0923	DN8	5/16	-5	8.1	12.5	120	480	0.319	0.492	1700	6800	4:1	45	1.77	81	0.054	SA1131	SA1831
0953	DN8	5/16	-5	8.1	14.3	190	760	0.319	0.563	2700	10800	4:1	45	1.77	127	0.085	SAB131	SAB831
1093	DN8	5/16	-5	8.1	14.3	350	1400	0.319	0.563	5000	20000	4:1	50	1.97	200	0.134	SAC131	SAC831
1253	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	129	0.087	SAB131	SAB831
1263	DN8	5/16	-5	8.1	13.4	300	1200	0.319	0.528	4300	17200	4:1	55	2.17	106	0.071	SAB131	SAB831
1353	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	263	0.177	SAB131	SAB831
1423	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	130	0.087	SAB131	SAB831
1433	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	260	0.175	SAB131	SAB831
1473	DN8	5/16	-5	8.1	15.2	250	1000	0.319	0.598	3600	14400	4:1	45	1.77	140	0.094	SAB131	SAB831

1483	DN8	5/16	-5	8.1	15.2	250	1000	0.319	0.598	3600	14400	4:1	45	1.77	280	0.188	SAB131	SAB831
1533	DN8	5/16	-5	8.1	15.0	250	1000	0.319	0.591	3600	14400	4:1	45	1.77	145	0.097	SAB131	SAB831
1553	DN8	5/16	-5	8.1	14.3	210	840	0.319	0.563	3000	12000	4:1	45	1.77	129	0.087	SAB131	SAB831
1563	DN8	5/16	-5	8.1	15.0	250	1000	0.319	0.591	3600	14400	4:1	45	1.77	145	0.097	SAB131	SAB831
1633	DN8	5/16	-5	8.1	15.0	250	1000	0.319	0.591	3600	14400	4:1	45	1.77	295	0.198	SAB131	SAB831
1663	DN8	5/16	-5	8.1	14.3	210	760	0.319	0.563	3000	10800	3.5:1	45	1.77	130	0.087	SAB131	SAB831
1753	DN8	5/16	-5	8.1	13.4	300	1200	0.319	0.528	4300	17200	4:1	55	2.17	217	0.146	SAB131	SAB831
1953	DN8	5/16	-5	8.1	14.3	210	760	0.319	0.563	3000	10800	3.5:1	45	1.77	130	0.087	SAB131	SAB831
2023	DN8	5/16	-5	7.9	13.7	900	2250	0.311	0.539	12900	32250	2.5:1	130	5.12	251	0.168	HAA131	
2033	DN8	5/16	-5	7.9	15.4	1400	3500	0.311	0.606	20000	50000	2.5:1	100	3.94	358	0.241	HAB131	HAB831
2043	DN8	5/16	-5	8.1	15.6	1500	3750	0.319	0.614	21700	54250	2.5:1	190	7.48	470	0.316	HAC131	HAC831
2063	DN8	5/16	-5	7.9	18.0	2050	5125	0.311	0.709	30000	75000	2.5:1	240	9.45	777	0.522	HAE131	
2083	DN8	5/16	-5	7.6	22.0	3800	7600	0.299	0.866	55000	130263	2:1	300	11.81	1510	1.015	HAI131	
2123	DN8	5/16	-5	8.0	13.8	1050	2625	0.315	0.543	15000	37500	2.5:1	130	5.12	285	0.192	HAA131	
2163	DN8	5/16	-5	8.0	19.0	2500	6250	0.315	0.748	36200	90500	2.5:1	250	9.84	970	0.652	HAF131	
2263	DN8	5/16	-5	7.6	18.7	3050	7000	0.299	0.736	44200	101600	2.3:1	250	9.84	977	0.657	HAH131	
2363	DN8	5/16	-5	8.1	22.5	2500	6250	0.319	0.886	36200	90500	2.5:1	250	9.84	1120	0.753	HAF132	
0204	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	165	0.111	SAB141	SAB841
0214	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	330	0.222	SAB141	SAB841
0224	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	157	0.105	SAB141	SAB841
0234	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	155	0.104	SAB141	SAB841
0304	DN10	3/8	-6	9.5	12.7	155	620	0.374	0.500	2200	8800	4:1	55	2.17	160	0.108	SAG141	
0314	DN10	3/8	-6	9.5	15.2	138	414	0.374	0.598	2000	6000	3:1	20	0.79	189	0.127	SAI141	SAI841
0354	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	45	1.77	205	0.138	SAC141	SAC841
0364	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	45	1.77	410	0.276	SAC141	SAC841
0374	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	45	1.77	201	0.135	SAC141	SAC841
0394	DN10	3/8	-6	9.8	16.7	700	1400	0.386	0.657	10000	20000	2:1	65	2.56	380	0.255	SAC141	SAC841
0404	DN10	3/8	-6	9.8	18.9	700	2800	0.386	0.744	10000	40000	4:1	90	3.54	327	0.220	SAF141	SAF841
0414	DN10	3/8	-6	9.8	18.9	700	2800	0.386	0.744	10000	40000	4:1	90	3.54	329	0.221	SAF141	SAF841
0464	DN10	3/8	-6	9.7	18.1	550	2200	0.382	0.713	8000	32000	4:1	70	2.76	205	0.138	SAF141	SAF841
0484	DN10	3/8	-6	9.8	18.9	700	2800	0.386	0.744	10000	40000	4:1	90	3.54	322	0.216	SAF141	SAF841
0494	DN10	3/8	-6	9.7	17.2	550	2200	0.382	0.677	8000	32000	4:1	60	2.36	285	0.192	SAF141	SAF841
0504	DN10	3/8	-6	9.8	15.5	212	850	0.386	0.610	3000	12000	4:1	65	2.56	245	0.165	SAB141	SAB841
0524	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	146	0.098	SAB141	SAB841
0534	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	149	0.100	SAB141	SAB841
0544	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	131	0.088	SAB141	SAB841
0554	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	137	0.092	SAB141	SAB841
0564	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	239	0.161	SAB141	SAB841
0584	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	243	0.163	SAB141	SAB841
0604	DN10	3/8	-6	9.9	17.1	350	1400	0.390	0.673	5000	20000	4:1	60	2.36	167	0.112	SAF141	SAF841
0624	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	145	0.097	SAB141	SAB841
0634	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	303	0.204	SAB141	SAB841
0664	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	149	0.100	SAB141	SAB841
0754	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	136	0.091	SAB141	SAB841
0764	DN10	3/8	-6	9.7	16.2	280	1120	0.382	0.638	4000	16000	4:1	60	2.36	158	0.106	SAB141	SAB841
07B4	DN10	3/8	-6	9.8	16.1	210	840	0.386	0.634	3000	12000	4:1	65	2.56	259	0.174	SAC141	SAC841
0814	DN10	3/8	-6	9.8	16.8	350	1400	0.386	0.661	5000	20000	4:1	65	2.56	366	0.246	SAC141	SAC841
0824	DN10	3/8	-6	9.8	16.8	330	1320	0.386	0.661	4700	18800	4:1	65	2.56	755	0.507	SAC141	SAC841
0834	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	232	0.156	SAB141	SAB841
0834BP	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	232	0.156	SAB141	SAB841
0844	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	240	0.161	SAB141	SAB841

0854	DN10	3/8	-6	9.8	16.8	330	1320	0.386	0.661	4700	18800	4:1	65	2.56	380	0.255	SAC141	SAC841
0874	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	245	0.165	SAB141	SAB841
0884	DN10	3/8	-6	9.8	15.5	225	900	0.386	0.610	3200	12800	4:1	65	2.56	483	0.325	SAB141	SAB841
0914	DN10	3/8	-6	9.8	16.8	500	1400	0.386	0.661	7250	18000	2.8:1	90	3.54	380	0.255	SAC141	SAC841
0924	DN10	3/8	-6	9.7	14.4	110	440	0.382	0.567	1500	6000	4:1	50	1.97	103	0.069	SA1141	SA1841
0954	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	149	0.100	SAB141	SAB841
0974	DN10	3/8	-6	9.7	16.6	160	640	0.382	0.654	2300	9200	4:1	55	2.17	168	0.113	SAB141	SAB841
0984	DN10	3/8	-6	9.7	16.0	160	640	0.382	0.630	2300	9200	4:1	55	2.17	142	0.095	SAB141	SAB841
1064	DN10	3/8	-6	9.5	15.0	20	80	0.374	0.591	290	1160	4:1	50	1.97	110	0.074		
1074	DN10	3/8	-6	9.5	15.0	20	80	0.374	0.591	290	1160	4:1	50	1.97	120	0.081		
1084	DN10	3/8	-6	9.7	15.9	280	1120	0.382	0.626	4000	16000	4:1	60	2.36	232	0.156	SAC141	SAC841
1094	DN10	3/8	-6	9.7	16.2	350	1400	0.382	0.638	5000	20000	4:1	60	2.36	259	0.174	SAC141	SAC841
1184	DN10	3/8	-6	9.7	16.0	210	525	0.382	0.630	3000	7500	2.5:1	55	2.17	149	0.100	SAB141	SAB841
1194	DN10	3/8	-6	9.7	17.4	280	840	0.382	0.685	4000	12000	3:1	45	1.77	193	0.130	SAC141	SAC841
1254	DN10	3/8	-6	9.7	16.6	210	840	0.382	0.654	3000	12000	4:1	45	1.77	166	0.112	SAB141	SAB841
1264	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	136	0.091	SAB141	SAB841
1274	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	132	0.089	SAB141	SAB841
1334	DN10	3/8	-6	9.7	14.5	90	270	0.382	0.571	1300	3900	3:1	50	1.97	106	0.071	SA1141	SA1841
1354	DN10	3/8	-6	9.7	16.6	210	840	0.382	0.654	3000	12000	4:1	45	1.77	337	0.226	SAB141	SAB841
1414	DN10	3/8	-6	9.8	18.9	700	2800	0.386	0.744	10000	40000	4:1	90	3.54	663	0.446	SAF141	SAF841
1424	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	165	0.111	SAB141	SAB841
1434	DN10	3/8	-6	9.7	16.5	210	840	0.382	0.650	3000	12000	4:1	45	1.77	330	0.222	SAB141	SAB841
1474	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	45	1.77	205	0.138	SAC141	SAC841
1484	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	45	1.77	410	0.276	SAC141	SAC841
1494	DN10	3/8	-6	9.7	18.2	500	2000	0.382	0.717	7000	28000	4:1	150	5.91	310	0.208		SAH841
1504	DN10	3/8	-6	9.7	16.9	420	1680	0.382	0.665	6000	24000	4:1	60	2.36	282	0.189	SAC141	SAC841
1534	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	55	2.17	201	0.135	SAC141	SAC841
1544	DN10	3/8	-6	9.7	16.9	350	1400	0.382	0.665	5000	20000	4:1	60	2.36	281	0.189	SAC141	SAC841
1554	DN10	3/8	-6	9.7	16.6	210	840	0.382	0.654	3000	12000	4:1	45	1.77	166	0.112	SAB141	SAB841
1564	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	55	2.17	201	0.135	SAC141	SAC841
1574	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	55	2.17	165	0.111	SAC141	SAC841
1584	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	128	0.086	SAB141	SAB841
15R4	DN10	3/8	-6	9.7	18.9	350	1400	0.382	0.744	5000	20000	4:1	70	2.76	219	0.147	SAF141	SAF841
1634	DN10	3/8	-6	9.7	18.0	250	1000	0.382	0.709	3600	14400	4:1	55	2.17	407	0.273	SAC141	SAC841
1664	DN10	3/8	-6	9.7	16.0	210	640	0.382	0.630	3000	9200	3:1	55	2.17	149	0.100	SAB141	SAB841
1754	DN10	3/8	-6	9.7	15.5	280	1120	0.382	0.610	4000	16000	4:1	60	2.36	277	0.186	SAB141	SAB841
1814	DN10	3/8	-6	9.8	16.8	350	1400	0.386	0.661	5000	20000	4:1	65	2.56	382	0.257	SAC141	SAC841
1854	DN10	3/8	-6	9.7	19.0	700	2800	0.382	0.748	10000	40000	4:1	150	5.91	329	0.221		SAH841
1954	DN10	3/8	-6	9.7	16.0	210	640	0.382	0.630	3000	9200	3:1	55	2.17	149	0.100	SAB141	SAB841
2024	DN10	3/8	-6	9.9	16.4	690	1725	0.390	0.646	10000	25000	2.5:1	150	5.91	313	0.210	HAA141	
2034	DN10	3/8	-6	10.2	18.2	1050	2625	0.402	0.717	15000	37500	2.5:1	120	4.72	502	0.337	HAB141	HAB841
2044	DN10	3/8	-6	9.9	18.8	1400	3500	0.390	0.740	20000	50000	2.5:1	190	7.48	687	0.461	HAC141	HAC841
A1228	DN10	3/8	-6	9.8	16.8	700	1400	0.386	0.661	10000	20000	2:1	65	2.56	375	0.252	SAC141	SAC841
0205	DN12	1/2	-8	13.0	21.3	210	840	0.512	0.839	3000	12000	4:1	70	2.76	240	0.161	SA5151	SA5851
0215	DN12	1/2	-8	13.0	21.3	210	840	0.512	0.839	3000	12000	4:1	70	2.76	480	0.323	SA5151	SA5851
0225	DN12	1/2	-8	13.0	21.3	210	840	0.512	0.839	3000	12000	4:1	70	2.76	249	0.167	SA5151	SA5851
0305	DN12	1/2	-8	12.8	16.1	120	480	0.504	0.634	1700	6800	4:1	70	2.76	188	0.126	SAG151	
0315	DN12	1/2	-8	12.8	18.8	103	309	0.504	0.740	1400	4200	3:1	25	0.98	245	0.165	SA1151	SA1851
0395	DN12	1/2	-8	13.0	20.5	700	1400	0.512	0.807	10000	20000	2:1	80	3.15	340	0.228	SAC151	SAC851
0405	DN12	1/2	-8	13.0	24.5	700	2450	0.512	0.965	10000	35500	3.5:1	100	3.94	528	0.355	SAF151	SAF851
0485	DN12	1/2	-8	13.0	23.2	590	2360	0.512	0.913	8500	34000	4:1	100	3.94	566	0.380	SAF151	SAF851
0495	DN12	1/2	-8	13.0	21.7	450	1800	0.512	0.854	6500	26000	4:1	80	3.15	396	0.266	SAF151	SAF851

0505	DN12	1/2	-8	13.0	18.8	175	700	0.512	0.740	2500	10000	4:1	85	3.35	310	0.208	SAB151	SAB851
0525	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	218	0.146	SAB151	SAB851
0535	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	224	0.151	SAB151	SAB851
0545	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	201	0.135	SAB151	SAB851
0555	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	205	0.138	SAB151	SAB851
0565	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	312	0.210	SAB151	SAB851
0585	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	315	0.212	SAB151	SAB851
0605	DN12	1/2	-8	13.0	21.7	350	1400	0.512	0.854	5000	20000	4:1	80	3.15	271	0.182	SAF151	SAF851
0625	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	216	0.145	SAB151	SAB851
0635	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	449	0.302	SAB151	SAB851
0665	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	222	0.149	SAB151	SAB851
0755	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	208	0.140	SAB151	SAB851
0765	DN12	1/2	-8	13.0	20.9	245	980	0.512	0.823	3500	14000	4:1	80	3.15	249	0.167	SA5151	SA5851
0815	DN12	1/2	-8	13.0	20.2	300	1200	0.512	0.795	4300	17200	4:1	85	3.35	441	0.296	SAC151	SAC851
0825	DN12	1/2	-8	13.0	20.2	260	1040	0.512	0.795	3700	14800	4:1	85	3.35	953	0.640	SAC151	SAC851
0835	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	300	0.202	SAB151	SAB851
0835BP	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	300	0.202	SAB151	SAB851
0845	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	290	0.195	SAB151	SAB851
0855	DN12	1/2	-8	13.0	20.2	260	1040	0.512	0.795	3700	14800	4:1	85	3.35	474	0.319	SAC151	SAC851
0875	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	310	0.208	SAB151	SAB851
0885	DN12	1/2	-8	13.0	18.8	190	760	0.512	0.740	2700	10800	4:1	85	3.35	629	0.423	SAB151	SAB851
0925	DN12	1/2	-8	13.0	19.1	100	400	0.512	0.752	1400	5600	4:1	70	2.76	174	0.117	SA1151	SA1851
0955	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	224	0.151	SAB151	SAB851
0975	DN12	1/2	-8	13.0	21.4	140	560	0.512	0.843	2000	8000	4:1	75	2.95	267	0.179	SA5151	SA5851
0985	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	209	0.140	SAB151	SAB851
1005	DN12	1/2	-8	13.0	21.4	175	438	0.512	0.843	2500	6250	2.5:1	75	2.95	230	0.155	SA5151	SA5851
1015	DN12	1/2	-8	13.0	21.8	200	500	0.512	0.858	2900	7250	2.5:1	75	2.95	277	0.186	SA5151	SA5851
1065	DN12	1/2	-8	12.7	19.1	20	80	0.500	0.752	290	1160	4:1	70	2.76	167	0.112		
1075	DN12	1/2	-8	12.7	19.1	20	80	0.500	0.752	290	1160	4:1	70	2.76	183	0.123		
1085	DN12	1/2	-8	13.0	19.4	250	1000	0.512	0.764	3600	14400	4:1	80	3.15	318	0.214	SAC151	SAC851
1095	DN12	1/2	-8	13.0	20.5	350	1400	0.512	0.807	5000	20000	4:1	80	3.15	341	0.229	SAC151	SAC851
1105	DN12	1/2	-8	13.0	21.4	200	500	0.512	0.843	2900	7200	2.5:1	75	2.95	228	0.153	SA5151	SA5851
1125	DN12	1/2	-8	13.0	21.4	210	525	0.512	0.843	3000	7500	2.5:1	75	2.95	230	0.155	SA5151	SA5851
1135	DN12	1/2	-8	13.0	22.2	250	625	0.512	0.874	3600	9000	2.5:1	75	2.95	254	0.171	SA5151	SA5851
1185	DN12	1/2	-8	13.0	20.3	210	525	0.512	0.799	3000	7500	2.5:1	75	2.95	222	0.149	SAB151	SAB851
1195	DN12	1/2	-8	13.0	22.3	280	700	0.512	0.878	4000	10000	2.5:1	75	2.95	255	0.171	SA5151	SA5851
1255	DN12	1/2	-8	13.0	22.5	210	840	0.512	0.886	3000	12000	4:1	70	2.76	293	0.197	SA5151	SA5851
1265	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	208	0.140	SAB151	SAB851
1275	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	188	0.126	SAB151	SAB851
1295	DN12	1/2	-8	13.0	20.3	140	560	0.512	0.799	2000	8000	4:1	75	2.95	215	0.144	SAB151	SAB851
1335	DN12	1/2	-8	13.0	18.5	90	270	0.512	0.728	1300	3900	3:1	80	3.15	153	0.103	SA1151	SA1851
1355	DN12	1/2	-8	13.0	22.5	210	840	0.512	0.886	3000	12000	4:1	70	2.76	603	0.405	SA5151	SA5851
1385	DN12	1/2	-8	13.0	23.3	210	840	0.512	0.917	3000	12000	4:1	75	2.95	370	0.249		SA5851
1425	DN12	1/2	-8	13.0	21.3	210	840	0.512	0.839	3000	12000	4:1	70	2.76	240	0.161	SA5151	SA5851
1435	DN12	1/2	-8	13.0	21.3	210	840	0.512	0.839	3000	12000	4:1	70	2.76	480	0.323	SA5151	SA5851
1505	DN12	1/2	-8	13.0	20.5	350	1400	0.512	0.807	5000	20000	4:1	80	3.15	341	0.229	SAC151	SAC851
1545	DN12	1/2	-8	13.0	21.3	350	1400	0.512	0.839	5000	20000	4:1	80	3.15	394	0.265	SA5151	SA5851
1555	DN12	1/2	-8	13.0	22.5	210	840	0.512	0.886	3000	12000	4:1	70	2.76	293	0.197	SA5151	SA5851
15R5	DN12	1/2	-8	13.0	22.5	350	1400	0.512	0.886	5000	20000	4:1	90	3.54	285	0.192	SAF151	SAF851
1665	DN12	1/2	-8	13.0	20.3	180	560	0.512	0.799	2600	8000	3:1	75	2.95	222	0.149	SAB151	SAB851
1755	DN12	1/2	-8	13.0	19.9	245	980	0.512	0.783	3500	14000	4:1	80	3.15	421	0.283	SAB151	SAB851
1815	DN12	1/2	-8	13.0	20.2	300	1200	0.512	0.795	4300	17200	4:1	85	3.35	462	0.310	SAC151	SAC851

1835	DN12	1/2	-8	13.2	20.7	350	1400	0.520	0.815	5000	20000	4:1	165	6.50	475	0.319	SAF151	SAF851
1955	DN12	1/2	-8	13.0	20.3	180	560	0.512	0.799	2600	8000	3:1	75	2.95	222	0.149	SAB151	SAB851
2025	DN12	1/2	-8	12.8	20.4	690	1725	0.504	0.803	10000	25000	2.5:1	190	7.48	472	0.317	HAA151	
2035	DN12	1/2	-8	12.9	22.1	1050	2625	0.508	0.870	15000	37500	2.5:1	140	5.51	709	0.477	HAB151	HAB851
2045	DN12	1/2	-8	12.8	21.6	1300	3250	0.504	0.850	18800	47000	2.5:1	200	7.87	826	0.555	HAC151	HAC851
2055	DN12	1/2	-8	12.8	24.3	1400	3500	0.504	0.957	20000	50000	2.5:1	110	4.33	1121	0.753	HAG151	
2065	DN12	1/2	-8	12.8	25.4	1800	4500	0.504	1.000	26100	65250	2.5:1	300	11.81	1550	1.041	HAE151	HAE851
2085	DN12	1/2	-8	12.8	28.7	3010	6250	0.504	1.130	43600	90531	2.1:1	350	13.78	2350	1.579		
2145	DN12	1/2	-8	12.8	22.5	1400	3500	0.504	0.886	20000	50000	2.5:1	180	7.09	968	0.650	HAD151	HAD851
2165	DN12	1/2	-8	12.9	25.3	2050	5125	0.508	0.996	30000	75000	2.5:1	300	11.81	1627	1.093	HAF151	
2245	DN12	1/2	-8	12.8	22.0	1050	3150	0.504	0.866	15000	45000	3:1	300	11.81	975	0.655	HAD151	HAD851
2265	DN12	1/2	-8	12.8	26.0	2500	6250	0.504	1.024	36200	90500	2.5:1	350	13.78	1782	1.197	HAH151	
A1402	DN12	1/2	-8	13.0	20.3	700	1400	0.512	0.799	10000	20000	2:1	80	3.15	341	0.229	SAC151	SAC851
0206	DN16	5/8	-10	16.3	26.0	210	840	0.642	1.024	3000	12000	4:1	100	3.94	370	0.249	SA5161	SA5861
0216	DN16	5/8	-10	16.3	26.0	210	840	0.642	1.024	3000	12000	4:1	100	3.94	740	0.497	SA5161	SA5861
0226	DN16	5/8	-10	16.3	26.0	210	840	0.642	1.024	3000	12000	4:1	100	3.94	362	0.243	SA5161	SA5861
0306	DN16	5/8	-10	16.6	19.8	85	340	0.654	0.780	1200	4800	4:1	130	5.12	251	0.169	SAG161	
0316	DN16	5/8	-10	15.9	22.1	83	249	0.626	0.870	1200	3600	3:1	50	1.97	316	0.212	SAI161	SAI861
0486	DN16	5/8	-10	16.3	26.6	500	2000	0.642	1.047	7200	28800	4:1	160	6.30	574	0.386	SAF161	SAF861
0506	DN16	5/8	-10	16.3	22.0	140	560	0.642	0.866	2000	8000	4:1	115	4.53	351	0.236	SAB161	SAB861
0526	DN16	5/8	-10	16.3	23.7	105	420	0.642	0.933	1500	6000	4:1	110	4.33	274	0.184	SAB161	SAB861
0546	DN16	5/8	-10	16.3	23.4	200	800	0.642	0.921	2900	11600	4:1	125	4.92	245	0.165	SAB161	SAB861
0566	DN16	5/8	-10	16.3	22.0	140	560	0.642	0.866	2000	8000	4:1	115	4.53	330	0.222	SAB161	SAB861
0636	DN16	5/8	-10	16.3	23.7	105	420	0.642	0.933	1500	6000	4:1	110	4.33	561	0.377	SAB161	SAB861
0666	DN16	5/8	-10	16.3	23.7	105	420	0.642	0.933	1500	6000	4:1	110	4.33	278	0.187	SAB161	SAB861
0756	DN16	5/8	-10	16.3	23.4	200	800	0.642	0.921	2900	11600	4:1	125	4.92	251	0.169	SAB161	SAB861
0826	DN16	5/8	-10	16.3	23.7	220	880	0.642	0.933	3100	12400	4:1	115	4.53	1133	0.761	SAC161	SAC861
0846	DN16	5/8	-10	16.3	22.0	140	560	0.642	0.866	2000	8000	4:1	115	4.53	321	0.216	SAB161	SAB861
0856	DN16	5/8	-10	16.3	23.7	220	880	0.642	0.933	3100	12400	4:1	115	4.53	561	0.377	SAC161	SAC861
0876	DN16	5/8	-10	16.3	22.0	140	560	0.642	0.866	2000	8000	4:1	115	4.53	351	0.236	SAB161	SAB861
0886	DN16	5/8	-10	16.3	22.0	140	560	0.642	0.866	2000	8000	4:1	115	4.53	673	0.452	SAB161	SAB861
0956	DN16	5/8	-10	16.3	23.7	105	420	0.642	0.933	1500	6000	4:1	110	4.33	278	0.187	SAB161	SAB861
1006	DN16	5/8	-10	16.3	24.4	175	438	0.642	0.961	2500	6250	2.5:1	100	3.94	265	0.178	SA5161	SA5861
1016	DN16	5/8	-10	16.3	25.6	200	500	0.642	1.008	2900	7250	2.5:1	100	3.94	363	0.244	SA5161	SA5861
1066	DN16	5/8	-10	16.2	23.1	20	80	0.638	0.909	290	1160	4:1	90	3.54	221	0.149		
1076	DN16	5/8	-10	16.2	23.1	20	80	0.638	0.909	290	1160	4:1	90	3.54	233	0.157		
1106	DN16	5/8	-10	16.3	24.4	200	500	0.642	0.961	2900	7250	2.5:1	100	3.94	264	0.177	SA5161	SA5861
1126	DN16	5/8	-10	16.3	24.4	210	525	0.642	0.961	3000	7500	2.5:1	100	3.94	265	0.178	SA5161	SA5861
1256	DN16	5/8	-10	16.3	26.1	210	840	0.642	1.028	3000	12000	4:1	100	3.94	372	0.250	SA5161	SA5861
1266	DN16	5/8	-10	16.3	23.4	200	800	0.642	0.921	2900	11600	4:1	125	4.92	251	0.169	SAB161	SAB861
1296	DN16	5/8	-10	16.3	23.7	105	420	0.642	0.933	1500	6000	4:1	110	4.33	273	0.183	SAB161	SAB861
1336	DN16	5/8	-10	16.3	22.8	90	270	0.642	0.898	1300	3900	3:1	120	4.72	236	0.159	SAI161	SAI861
1356	DN16	5/8	-10	16.3	26.1	210	840	0.642	1.028	3000	12000	4:1	100	3.94	749	0.503	SA5161	SA5861
1426	DN16	5/8	-10	16.3	26.0	210	840	0.642	1.024	3000	12000	4:1	100	3.94	370	0.249	SA5161	SA5861
1436	DN16	5/8	-10	16.3	26.0	210	840	0.642	1.024	3000	12000	4:1	100	3.94	740	0.497	SA5161	SA5861
1506	DN16	5/8	-10	16.3	25.1	250	1000	0.642	0.988	3600	14400	4:1	115	4.53	488	0.328	SA5161	SA5861
1556	DN16	5/8	-10	16.3	26.1	210	840	0.642	1.028	3000	12000	4:1	100	3.94	371	0.249	SA5161	SA5861
1606	DN16	5/8	-10	16.3	25.1	250	1000	0.642	0.988	3600	14400	4:1	115	4.53	981	0.659	SA5161	SA5161
1666	DN16	5/8	-10	16.3	23.7	140	420	0.642	0.933	2000	6000	3:1	110	4.33	278	0.187	SAB161	SAB861
1756	DN16	5/8	-10	16.3	23.4	200	800	0.642	0.921	2900	11600	4:1	125	4.92	507	0.341	SAB161	SAB861
1816	DN16	5/8	-10	16.3	23.7	250	1000	0.642	0.933	3600	14400	4:1	115	4.53	578	0.388	SAC161	SAC861

1836	DN16	5/8	-10	16.3	24.8	420	1680	0.642	0.976	6000	24000	4:1	220	8.66	667	0.448	SAF161	SAF861
1956	DN16	5/8	-10	16.3	23.7	140	420	0.642	0.933	2000	6000	3:1	110	4.33	278	0.187	SAB161	SAB861
0307	DN20	3/4	-12	19.8	23.0	75	300	0.780	0.906	1000	4000	4:1	190	7.48	291	0.196	SAG171	
0317	DN20	3/4	-12	19.0	24.6	69	207	0.748	0.969	1000	3000	3:1	65	2.56	362	0.243	SAI171	SAI871
0487	DN20	3/4	-12	19.5	30.5	450	1800	0.768	1.201	6500	26000	4:1	180	7.09	654	0.439	SAF171	SAF871
0507	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	464	0.312	SAB171	SAB871
0527	DN20	3/4	-12	19.5	27.1	90	360	0.768	1.067	1300	5200	4:1	140	5.51	333	0.224	SAB171	SAB871
0547	DN20	3/4	-12	19.5	27.1	165	660	0.768	1.067	2300	9200	4:1	150	5.91	317	0.213	SAB171	SAB871
0567	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	480	0.323	SAB171	SAB871
0607	DN20	3/4	-12	19.5	29.8	350	1400	0.768	1.173	5000	20000	4:1	150	5.91	412	0.277	SAF171	SAF871
0637	DN20	3/4	-12	19.5	27.1	90	360	0.768	1.067	1300	5200	4:1	140	5.51	681	0.458	SAB171	SAB871
0667	DN20	3/4	-12	19.5	27.1	90	360	0.768	1.067	1300	5200	4:1	140	5.51	338	0.227	SAB171	SAB871
0757	DN20	3/4	-12	19.5	27.1	165	660	0.768	1.067	2300	9200	4:1	150	5.91	323	0.217	SAB171	SAB871
0817	DN20	3/4	-12	19.5	27.8	215	860	0.768	1.094	3100	12400	4:1	170	6.69	697	0.468	SAC171	SAC871
0827	DN20	3/4	-12	19.5	27.8	150	600	0.768	1.094	2100	8400	4:1	170	6.69	1439	0.967	SAC171	SAC871
0837	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	424	0.285	SAB171	SAB871
0837BP	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	424	0.285	SAB171	SAB871
0847	DN20	3/4	-12	19.5	26.0	115	460	0.768	1.024	1600	6400	4:1	145	5.71	433	0.291	SAB171	SAB871
0857	DN20	3/4	-12	19.5	27.8	150	600	0.768	1.094	2100	8400	4:1	170	6.69	717	0.482	SAC171	SAC871
0877	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	464	0.312	SAB171	SAB871
0887	DN20	3/4	-12	19.5	25.8	115	460	0.768	1.016	1600	6400	4:1	145	5.71	965	0.648	SAB171	SAB871
0957	DN20	3/4	-12	19.5	27.1	90	360	0.768	1.067	1300	5200	4:1	140	5.51	335	0.225	SAB171	SAB871
1007	DN20	3/4	-12	19.6	29.7	175	438	0.772	1.169	2500	6250	2.5:1	120	4.72	410	0.276	SA5171	SA5871
1017	DN20	3/4	-12	19.6	29.6	200	500	0.772	1.165	2900	7250	2.5:1	120	4.72	444	0.298	SA5171	SA5871
1067	DN20	3/4	-12	19.0	26.0	20	80	0.748	1.024	290	1160	4:1	110	4.33	259	0.174		
1077	DN20	3/4	-12	19.0	26.0	20	80	0.748	1.024	290	1160	4:1	110	4.33	274	0.184		
1107	DN20	3/4	-12	19.6	29.7	200	500	0.772	1.169	2900	7250	2.5:1	120	4.72	412	0.277	SA5171	SA5871
1127	DN20	3/4	-12	19.6	29.7	210	525	0.772	1.169	3000	7500	2.5:1	120	4.72	410	0.276	SA5171	SA5871
1137	DN20	3/4	-12	19.6	30.1	250	625	0.772	1.185	3600	9000	2.5:1	120	4.72	435	0.292	SA5171	SA5871
1147	DN20	3/4	-12	19.6	30.1	250	625	0.772	1.185	3600	9000	2.5:1	120	4.72	434	0.292	SA5171	SA5871
1267	DN20	3/4	-12	19.5	27.1	165	660	0.768	1.067	2300	9200	4:1	150	5.91	324	0.218	SAB171	SAB871
1297	DN20	3/4	-12	19.5	27.1	90	360	0.768	1.067	1300	5200	4:1	140	5.51	331	0.222	SAB171	SAB871
1337	DN20	3/4	-12	19.6	27.5	90	270	0.772	1.083	1300	3900	3:1	180	7.09	329	0.221	SAI171	SAI871
1507	DN20	3/4	-12	19.5	28.7	250	1000	0.768	1.130	3600	14400	4:1	150	5.91	568	0.382	SA5171	SA5871
15R7	DN20	3/4	-12	19.5	29.6	350	1400	0.768	1.165	5000	20000	4:1	180	7.09	406	0.273	SAF172	SAF872
1667	DN20	3/4	-12	19.5	27.1	120	360	0.768	1.067	1700	5200	3:1	140	5.51	338	0.227	SAB171	SAB871
1687	DN20	3/4	-12	19.5	27.5	210	840	0.768	1.083	3000	12000	4:1	150	5.91	316	0.212	SAL171	SAL871
1757	DN20	3/4	-12	19.5	27.1	165	660	0.768	1.067	2300	9200	4:1	150	5.91	651	0.437	SAB171	SAB871
1817	DN20	3/4	-12	19.5	28.0	215	860	0.768	1.102	3100	12400	4:1	170	6.69	746	0.501	SAC171	SAC871
1837	DN20	3/4	-12	19.6	29.2	350	1400	0.772	1.150	5000	20000	4:1	240	9.45	914	0.614	SAF171	SAF871
1957	DN20	3/4	-12	19.5	27.1	120	360	0.768	1.067	1700	5200	3:1	140	5.51	338	0.227	SAB171	SAB871
2037	DN20	3/4	-12	18.8	29.9	760	1900	0.740	1.177	11000	27500	2.5:1	220	8.66	1236	0.831	HAB171	HAB871
2047	DN20	3/4	-12	18.8	30.0	1050	2625	0.740	1.181	15000	37500	2.5:1	250	9.84	1407	0.946	HAC171	
2057	DN20	3/4	-12	18.8	32.6	1200	3000	0.740	1.283	17400	43500	2.5:1	170	6.69	1858	1.249	HAG171	
2067	DN20	3/4	-12	19.1	33.7	1400	3500	0.752	1.327	20000	50000	2.5:1	350	13.78	2290	1.539	HAET171	
2167	DN20	3/4	-12	19.1	33.7	1600	4000	0.752	1.327	23200	58000	2.5:1	350	13.78	2290	1.539	HAF171	
0308	DN25	1	-16	25.4	28.8	75	300	1.000	1.134	1000	4000	4:1	270	10.63	410	0.275	SAG181	
0318	DN25	1	-16	25.4	32.8	46	138	1.000	1.291	600	1800	3:1	90	3.54	478	0.321	SAI181	SAI881
0488	DN25	1	-16	25.8	38.2	310	1240	1.016	1.504	4500	18000	4:1	250	9.84	897	0.603	SAF181	SAF881
0528	DN25	1	-16	25.9	34.0	70	280	1.020	1.339	1000	4000	4:1	190	7.48	453	0.304	SAB181	SAB881
0548	DN25	1	-16	25.9	34	140	560	1.020	1.339	2000	8000	4:1	200	7.87	439	0.295	SAB181	SAB881
0568	DN25	1	-16	25.8	33.4	95	380	1.016	1.315	1300	5200	4:1	180	7.09	648	0.435	SAB181	SAB881

0608	DN25	1	-16	25.9	39.0	350	1400	1.020	1.535	5000	20000	4:1	250	9.84	726	0.488	SAF181	SAF881
0638	DN25	1	-16	25.9	34.0	70	280	1.020	1.339	1000	4000	4:1	190	7.48	927	0.623	SAB181	SAB881
0668	DN25	1	-16	25.9	34.0	70	280	1.020	1.339	1000	4000	4:1	190	7.48	461	0.310	SAB181	SAB881
0758	DN25	1	-16	25.9	34	140	560	1.020	1.339	2000	8000	4:1	200	7.87	443	0.298	SAB181	SAB881
0848	DN25	1	-16	25.8	33.4	95	380	1.016	1.315	1300	5200	4:1	180	7.09	621	0.417	SAB181	SAB881
0878	DN25	1	-16	25.8	33.4	95	380	1.016	1.315	1300	5200	4:1	180	7.09	667	0.448	SAB181	SAB881
0888	DN25	1	-16	25.8	33.4	95	380	1.016	1.315	1300	5200	4:1	180	7.09	1315	0.884	SAB181	SAB881
0958	DN25	1	-16	25.9	34.0	70	280	1.020	1.339	1000	4000	4:1	190	7.48	460	0.309	SAB181	SAB881
1008	DN25	1	-16	25.6	37.5	175	438	1.008	1.476	2500	6250	2.5:1	155	6.10	620	0.417	SA5181	SA5881
1018	DN25	1	-16	25.6	37.6	200	500	1.008	1.480	2900	7250	2.5:1	155	6.10	650	0.437	SA5181	SA5881
1108	DN25	1	-16	25.6	37.5	200	500	1.008	1.476	2900	7200	2.5:1	155	6.10	605	0.407	SA5181	SA5881
1128	DN25	1	-16	25.6	37.5	210	525	1.008	1.476	3000	7500	2.5:1	155	6.10	620	0.417	SA5181	SA5881
1138	DN25	1	-16	25.6	36.5	250	625	1.008	1.437	3600	9000	2.5:1	155	6.10	580	0.390	SA5181	SA5881
1148	DN25	1	-16	25.6	37.3	250	625	1.008	1.469	3600	9000	2.5:1	155	6.10	630	0.423	SA5181	SA5881
1268	DN25	1	-16	25.9	34.0	140	560	1.020	1.339	2000	8000	4:1	200	7.87	443	0.298	SAB181	SAB881
1298	DN25	1	-16	25.9	34.0	70	280	1.020	1.339	1000	4000	4:1	190	7.48	443	0.298	SAB181	SAB881
15R8	DN25	1	-16	25.9	39.0	350	1400	1.020	1.535	5000	20000	4:1	200	7.87	724	0.487	SAF181	SAF881
1668	DN25	1	-16	25.9	34.0	90	280	1.020	1.339	1300	4000	3:1	190	7.48	461	0.310	SAB181	SAB881
1688	DN25	1	-16	25.9	35.5	210	840	1.020	1.398	3000	12000	4:1	250	9.84	518	0.348	SAL181	SAL881
1758	DN25	1	-16	25.9	34	140	560	1.020	1.339	2000	8000	4:1	200	7.87	891	0.599	SAB181	SAB881
1818	DN25	1	-16	25.8	35.2	190	760	1.016	1.386	2700	10800	4:1	180	7.09	1022	0.687	SAC181	SAC881
1838	DN25	1	-16	25.9	36.0	280	1120	1.020	1.417	4000	16000	4:1	350	13.78	1183	0.795	SAL181	SAL881
1958	DN25	1	-16	25.9	34.0	90	280	1.020	1.339	1300	4000	3:1	190	7.48	461	0.310	SAB181	SAB881
2048	DN25	1	-16	24.8	38.3	1050	2625	0.976	1.508	15000	37500	2.5:1	300	11.81	2197	1.476		HAC881
2068	DN25	1	-16	24.8	41.0	1200	3000	0.976	1.614	17400	43500	2.5:1	600	23.62	3211	2.158	HAE181	
0319	DN32	1+1/4	-20	32.2	40.7	34	102	1.268	1.602	400	1200	3:1	125	4.92	561	0.377	SAI191	SAI891
1009	DN32	1+1/4	-20	32.4	47.2	175	438	1.276	1.858	2500	6250	2.5:1	240	9.45	1000	0.672	SA5191	SA5891
1019	DN32	1+1/4	-20	32.4	46.0	200	500	1.276	1.811	2900	7250	2.5:1	240	9.45	888	0.597	SA5191	SA5891
1109	DN32	1+1/4	-20	32.4	47.2	200	500	1.276	1.858	2900	7200	2.5:1	240	9.45	1001	0.673	SA5191	SA5891
1129	DN32	1+1/4	-20	32.4	47.2	210	525	1.276	1.858	3000	7500	2.5:1	240	9.45	1000	0.672	SA5191	SA5891
1139	DN32	1+1/4	-20	32.4	46.0	250	625	1.276	1.811	3600	9000	2.5:1	240	9.45	898	0.603	SA5191	SA5891
1149	DN32	1+1/4	-20	32.4	46.2	250	625	1.276	1.819	3600	9000	2.5:1	240	9.45	885	0.595	SA5191	SA5891
1839	DN32	1+1/4	-20	32.0	45.2	310	1240	1.260	1.780	4500	18000	4:1	500	19.69	1916	1.287	SAL191	SAL891
031T	DN38	1+1/2	-24	38.1	48.2	30	90	1.500	1.898	400	1200	3:1	150	5.91	90	0.060	SAI1T1	SAI8T1
110T	DN38	1+1/2	-24	38.4	55.6	200	500	1.512	2.189	2900	7200	2.5:1	300	11.81	1340	0.900	SA51T1	SA58T1
112T	DN38	1+1/2	-24	38.4	55.6	210	525	1.512	2.189	3000	7500	2.5:1	300	11.81	1345	0.904	SA51T1	SA58T1
113T	DN38	1+1/2	-24	38.4	53.4	250	625	1.512	2.102	3600	9000	2.5:1	300	11.81	1154	0.775	SA51T1	SA58T1
XX100T	DN38	1+1/2	-24	38.4	55.6	210	525	1.512	2.189	3000	7500	2.5:1	300	11.81	1345	0.904	SA51T1	SA58T1
031X	DN51	2	-32	51.4	61.5	23	69	2.024	2.421	300	900	3:1	200	7.87	567	0.381	SAI1X1	SAI8X1

Dimensions and values shown may be changed without prior notice to improve product performances and reliability.
Transfer Oil S.p.A. assumes no liability on mistakes nor errors appearing in this spec sheet.

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